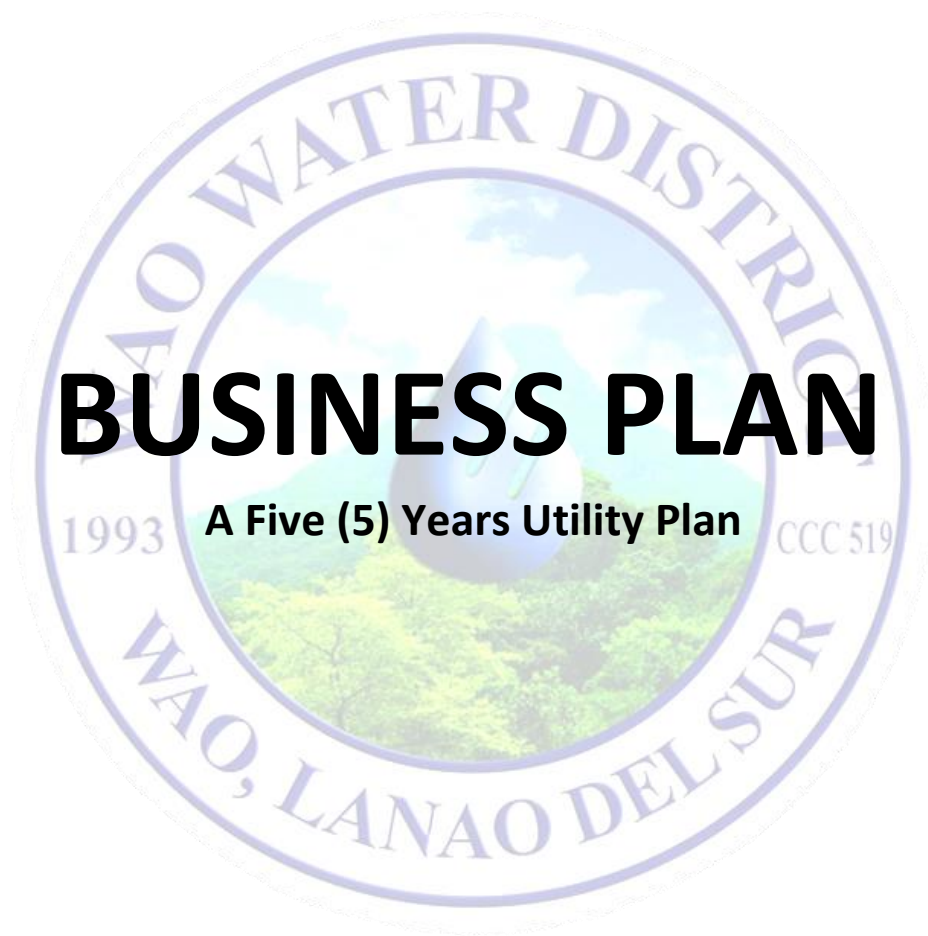


Republic of the Philippines  
**WAO WATER DISTRICT**  
Western, Wao, Lanao del Sur



# **BUSINESS PLAN**

**A Five (5) Years Utility Plan**

**A Government Owned and Controlled Corporation**

**2017**

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## **PREFACE**

This five (5) years Business Plan is proposed in accordance with the LWUA's mandate to every water district to submit a five (5) years business plan for the promotion, development and financing needs of local water utilities.

It shall serve as a basis for the assessment and prioritization of LWUA's investment and development programs as well as monitoring of the water district's performance.

This plan provides an opportunity to every WWD personnel to demonstrate their knowledge, skills and competence required in the implementation of this project.



## Part I- EXECUTIVE SUMMARY

*“Providing safe drinking water at a reasonable price and excellent service- that’s the life WWD are living for.”*

We commit reliable service, 24/7 supply of potable and affordable water to satisfy and uphold the well-being of our concessionaires by conducting ourselves as public servants, upholding the tenets of professionalism and taking pro-active stance in environmental concerns.

With that, we continue to aim excellence in the field of public utility to supply human needs.

The WWD lives in the corporate philosophy of service with dignity and proficiency.

## Part II- COMPANY DESCRIPTION



Wao Water District is a Government Owned and Controlled Corporation performing public service and supplying public wants (PD 198). It has been fully operational since 1999 and is currently on a category D serving 3,968 concessionaires with more than 19,840 people from 20 barangays.

It has grown into a more established entity providing employment to 28 individuals composed of 10 regular employees, 1 casual employee and 17 job orders compared to 8 regular employees from its inception. One big contributor to this growth is the massive increase of its concessionaires denoting a very important role of safe drinking water to the people of Wao.

## Part III- PRODUCTS / SERVICES

*“The right to a safe and potable drinking water, that’s what everybody deserves.”*

Among the many challenges of a booming community like Wao is the provision of its basic necessity such as access to potable water (WSP). This is where Wao Water District comes in.

With WWD, the concessionaires can be sure that the water they are drinking is safe from any chemical intrusion and passed the standard quality required by the LWUA and set by the PNSDW.

#### PHYSICAL AND CHEMICAL TEST REPORT

Parameters	Test Method	Results		PNSDW DOH, 2007 (maximum)
		Bagaobao Spring	Bungol Spring	
pH	4500 H <sup>+</sup> B. Electrometry	6.6 @ 18.3 °C	6.7 @ 18.4 °C	6.5-8.5
True Color, CU	2120 B. Visual Comparison	5	5	5
Turbidity, NTU	2130 B. Nephelometry	0.31	0.51	5
Chloride, mg / L	4500-Cl <sup>-</sup> B. Argentometry	0.73	1.21	250
Total Dissolved Solids, mg / L	2540 C. Gravimetry	123	122	500
Nitrate, mg / L	AOAC 973.50 Brucine Colorimetric Method	4.27	1.44	50
Sulfate, mg / L	4500-SO <sub>4</sub> <sup>2-</sup> E. Turbidimetry	Less than 5 <sup>d</sup>	Less than 5 <sup>d</sup>	250
Manganese, mg / L	3030 f. Nitric Acid-Hydrochloric	Less than 0.01 <sup>b</sup>	Less than 0.01 <sup>b</sup>	0.4
Iron, mg / L	Acid Digestion, 3111 B. Direct Air-	Less than 0.04 <sup>b</sup>	Less than 0.04 <sup>b</sup>	1
Cadmium, mg / L	Acetylene Flame AAS	Less than 0.003 <sup>b</sup>	Less than 0.003 <sup>b</sup>	0.003
Lead, mg / L	3030 E. Nitric Acid Digestion, 3111 B. Direct Air-Acetylene Flame AAS	Less than 0.01 <sup>b</sup>	Less than 0.01 <sup>b</sup>	0.01
Arsenic	Mquant Arsenic Test Kit	Less than 0.005 <sup>d</sup>	Less than 0.005 <sup>d</sup>	0.01
Benzane, mg /L	Gas Chromatography	-	Less than 0.01 <sup>b</sup>	0.01

\*\*\*Data above was based on the surface water analyzed on Jan. 5, 2017 by F.A.S.T. Laboratories- CDO.

The district is also using calcium hypochlorite solution with 70% concentration as its mode of sanitation which is monitored daily at predetermined locations to ensure avoidance of any untoward contamination (WSP).

Water samples from different service areas are taken every month to undergo Bacteriological Test at Central Mindanao University, Musuan, Maramag, Bukidnon and F.A.S.T. Laboratories-Cagayan de Oro City. These samples are being analyzed to ensure that the water is free from any pathogenic bacteria.

### RESULT ANALYSIS

Sampling Point (Barangay)	Heterotrophic Plate Count, (CFU / ml)	No. of Positive Tube (out of 5 Tubes)		Most Probable Number (MPN) / 100mL		E.coli*	Conformance to PNSDW**
		Total Coliform	Fecal Coliform	Total Coliform Count	Fecal Coliform Count		
Banga	<30 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
Eastern	<30 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
Pagalongan	<1 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
Park Area	<30 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
Poblacion	<30 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
Western	<30 Est.	0	0	Less than 1.1	Less than 1.1	Negative	PASSED
PNSDW, DOH 2007	< 500	0	0	Less than 1.1	Less than 1.1	Negative	
TEST METHOD	Pour Plate	(9221 B-C, E-F) Multiple Tube Fermentation Technique					

\*\*\* May 23, 2017 Water Sample

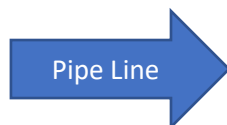
Moreover, it is a savings in the part of concessionaires comparing the monthly expenses when buying purified water and paying a minimum monthly consumption of Php116.00 for 10 cu.m..



## WATER SYSTEM 1



*Catchment / Bungol Spring  
868 m above sea level  
90 LPS Capacity  
(Kilometer 9)*



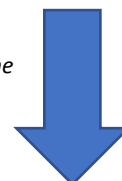
*36 cu.m Sump Tank 1  
15 LPS Capacity  
Connected with a 4" Ø Transmission Line*



*Sump Tank 2  
20 LPS Capacity  
Connected with a 6" Ø Transmission Line*



*4" Ø and 6" Ø Transmission Line  
4.8 Km to JICA Reservoir*



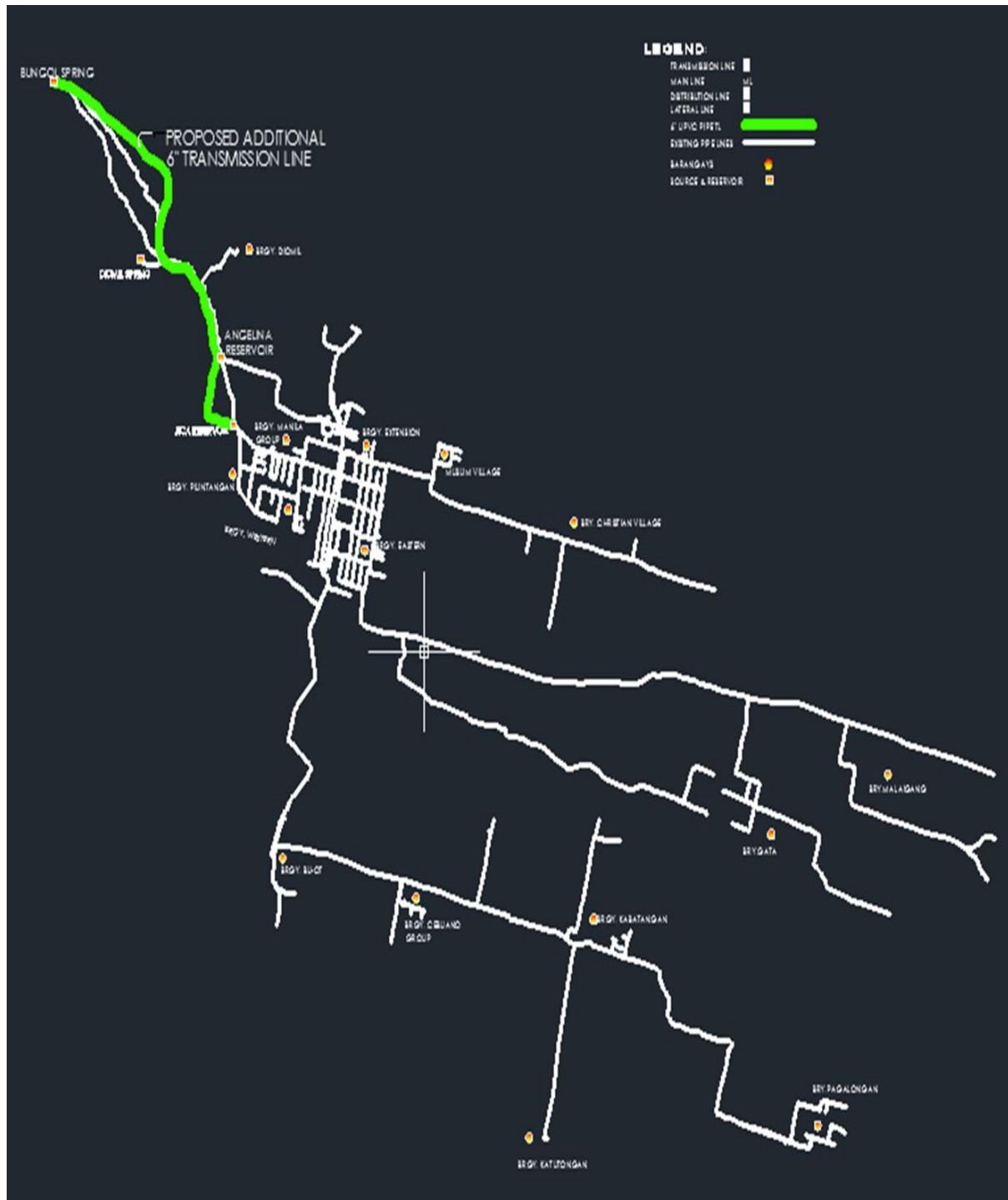
*Angelina Reservoir  
30 cu.m Capacity  
646 m above sea level  
(Manila Group)*



*50 cu.m Capacity  
625 m above sea level  
6" Ø Control Gate Valve (Manila Group)  
JICA Reservoir  
With Chlorinator House*

As the illustration above shows, the water source has so much to offer. Imagine a source with a capacity of 90 LPS but is only distributing 35 LPS. There is a big possibility of maximizing its capacity if there will be a rehabilitation and enhancement of the entire water system.

## BUNGOL MAP



Right now, Wao Water District has two (2) operational water systems- the Bungol Spring and the Bagaobao Spring with a Conditional Water Permit No. 04-25-12-042.

## WATER SYSTEM 2



*Bagaobao Spring  
588 m above sea level  
CWP No. 04-25-12-042  
17.4 LPS Capacity  
(Brgy. Park Area)*

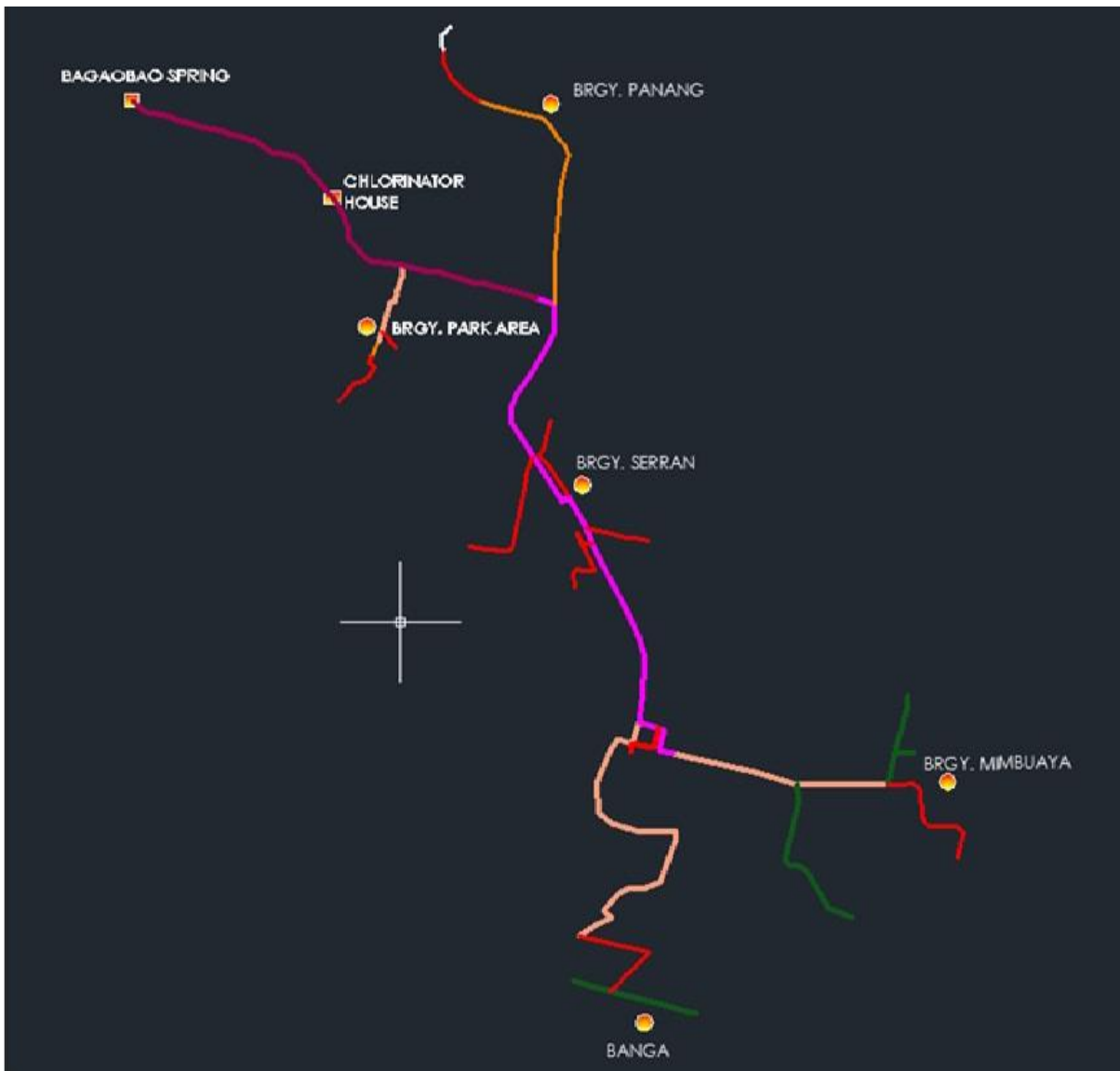


*Chlorinator House and Flow Meter  
1.3 Km from the water source*



*Concessionaires  
Water services is distributed thru laterals and  
distribution lines  
8.4 Km from the water source*

## BAGAOBAO MAP



Aside from that, there are also two (2) more back-up water sources which needs to be develop.

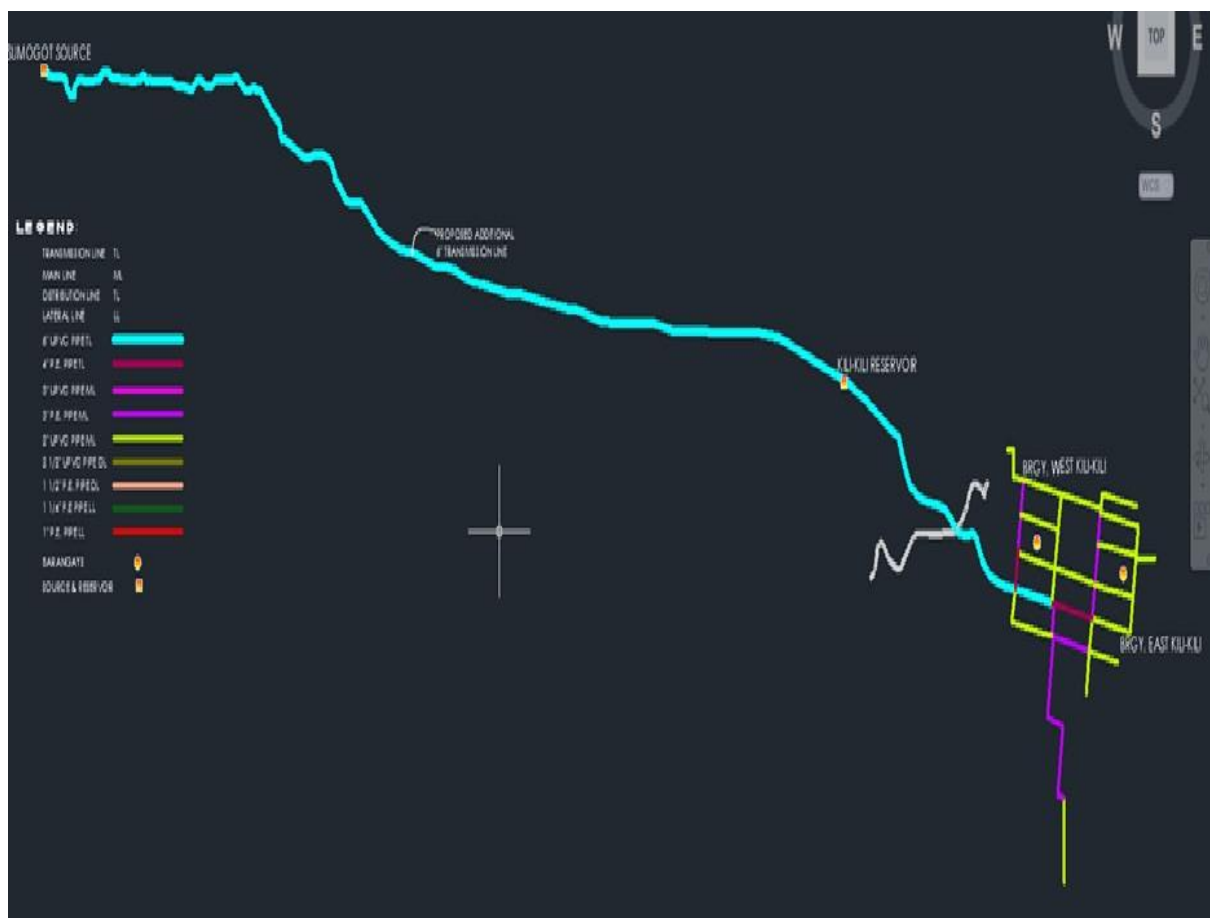


Sumugot Spring 17.4 LPS  
CWP No. 04-25-12-041  
Brgy. Sumugot



Villalon Spring 72 LPS  
Brgy. Kadingilan

### SUMUGOT MAP



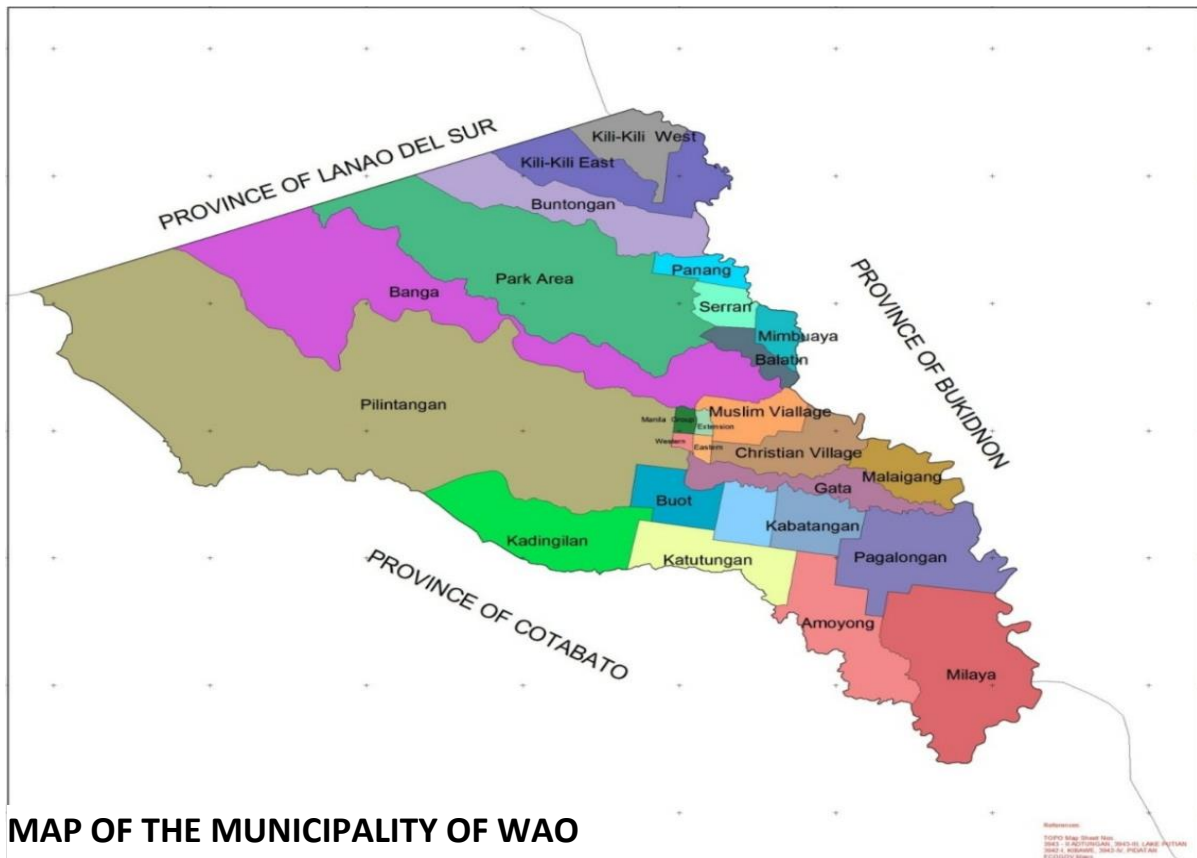


## VILLALON MAP



If these water sources would be fully utilized, Wao Water District can guarantee not only 24 hours water services to its concessionaires but also luxurious swimming pools and others.

## Part IV- MARKET ANALYSIS



Barangay	AREA (Has)	2015 Population	2016 Population	# of Household	Total Active Concessionaires	Concessionaires per Classification as of May 2017							Remarks
						Residential	Government	Comm	Comm A	Comm B	Comm C	Bulk	
Amoyong	1,253.17	1,435	1,454	291	-								UNSERVE
Balatin	220.6	731	741	148	55	52		3					SERVED
Banga	4,292.35	1,539	1,559	312	222	208	8	2		2	2		SERVED
Buntongan	1,021.23	1,084	1,098	220	-								UNSERVE
Buot	476	1,299	1,316	263	76	75	1						SERVED
Cebuano Group	438.23	1,705	1,728	346	82	80	2						SERVED
Christian Village	789.68	1,539	1,559	312	128	124	4						SERVED
Eastern	46.88	2,940	2,979	596	872	723	17	34	11	44	43		SERVED
Extension	56.44	2,313	2,344	469	479	446	2	10	1	5	15		SERVED
Gata	676.01	1,232	1,248	250	143	137	3	1		1	1		SERVED
Kabatangan	597.44	1,509	1,529	306	148	138	9	1					SERVED
Kadingilan	1,478.00	1,239	1,255	251	-								UNSERVE
Katutungan	832.47	2,230	2,259	452	10	10							SERVED
Kilikili East	1,361.37	2,466	2,499	500	-								UNSERVE
Kilikili West	852.69	2,650	2,685	537	-								UNSERVE
Malaigang	547.64	931	943	189	94	92	2						SERVED
Manila Group	75.14	2,814	2,851	570	647	594	4	18		6	24	1	SERVED
Milaya	2,281.81	2,078	2,105	421	-								UNSERVE
Mimbuaya	301.72	953	966	193	56	53	3						SERVED
Muslim Village	523.68	956	969	194	102	100	1				1		SERVED
Pagalongan	1,479.66	2,589	2,623	525	105	103	1				1		SERVED
Panang	283.86	856	867	173	74	70	3	1					SERVED
Park Area	4,076.20	3,728	3,777	755	69	65	2	1			1		SERVED
Pilintangan	11,084.20	1,872	1,897	379	9	7	1	1					SERVED
Serran Village	304.09	677	686	137	104	98	4	1		1			SERVED
Western	54.3	2,497	2,530	506	493	392	23	26	10	20	22		SERVED
<b>TOTAL</b>	<b>35,404.86</b>	<b>45,862</b>	<b>46,467</b>	<b>9,293</b>	<b>3,968</b>	<b>3,567</b>	<b>90</b>	<b>99</b>	<b>22</b>	<b>79</b>	<b>110</b>	<b>1</b>	
<b>Growth Rate 1.32%</b>													
It is notable indeed that there are some residences with two (2) connection lines.													

A water district is a local corporate entity that operates and maintains a water supply system in one or more provincial cities or municipalities (LWUA Website).

Currently, there are 511 operational water districts all over the Philippines and Wao Water district is one of those with CCC No. 519.

Wao is a second-class municipality and the only Christian Municipality in the province of Lanao del Sur, Philippines. According to the 2016 census, it has a population of 46,467 people with 9,293 households. As of May 31, 2017, Wao Water District has already extended the services to 3,968 concessionaires. That's just 43% of the number of households from 2016. Clearly, there is a lot of improvement to do in the water system in order to extend the services to the remaining 5,325 households without clean water.

In the past, the district was only informing the public about this utility services through barangay meetings and for the last 17 years, we were only generating an average of 150 new concessionaires per annum (without project expansion). But right now, because of technology, aggressive marketing and expansion, we were able to improve the dissemination of information and generate new connections. Based on our latest record, from January to May 31, 2017, the total number of new installations have reached to 266 accounts. That's quite a record breaker.

One big contributor to this record-breaking event was the water supply project at Brgy. Pagalongan. According to the 2016 statistics, there were 525 households at that barangay plus public and private users. Technically, there were 105 concessionaires who already availed of the service from March to May 31, 2017 out of the 300 estimated households that was foreseen to be covered by the most recent water supply project. Apparently, the district still need to work on the remaining 225 households and make sure that they will be able to enjoy the service 24/7.

With these data at hand, a proposal to develop an additional 6" Ø Transmission Line from Bungol Spring could help address the foregoing problem and hopefully, this will be a stepping stone for the district to develop another project that could finally supply clean and potable drinking water to the remaining 6 barangays with an estimated population of 13,068 (2018).

SWOT ANALYSIS			
STRENGTH	WEAKNESSES	OPPORTUNITIES	THREATS
Better HR Management	Old Pipelines	Availability of Unserved Population	Natural Calamities
Well-equipped Personnel	Small Pipelines	LWUA Loan Portfolio	Water Contamination
Approved Water Sources Permits	Remote Area		Man-made Hazard
Gravity Type Water Sources	Limited Funds		
	Mains are located at flood and landslide prone areas		

It is a clear-cut evidence that Wao Water District, being the major provider of safe and potable drinking water in the Municipality of Wao, will continue to exist for as long as water remains a necessity to sustain human life.

## Part V- STRATEGY AND IMPLEMENTATION

The biggest factor that pulls us down from achieving our goal is **CAPITALIZATION** and **DELAYED APPROVAL OF RATE ADJUSTMENT**. We have the strong will, we have the courage, but we have limited funds.

Among the many things that should be done are as follows:

### 1. A mark-up of 25% on the existing rate (2018)

CLASSIFICATION	CODE	EXISTING MINIMUM RATE	MARKED-UP RATE
Residential	102	116	145
Government	202	116	145
Commercial (full)	302	232	290
Commercial A	312	203	254
Commercial B	322	174	218
Commercial C	332	145	181
Bulk	402	348	435

This is to address the continuous increase in the inflation rate and survival of the district.

## 2. Proposed Buntongan Expansion Project (2018)

PROGRAM OF WORKS				
ADDITIONAL TRANSMISSION LINE PANANG TO BUNTONGAN				
<b>I. ENGINEERING BASIC COST ITEMS:</b>				
<b>I. TRANSMISSION LINE</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
a. Park Area to Buntongan				
1.) 90mm PVC PIPE Series 8 Class 150 W/ O-ring	252	length	1,550.00	390,600.00
2.) 63mm PVC PIPE Series 8 Class 150 W/ O-ring	282	length	758.00	213,756.00
Sub-Total				604,356.00
3.) Fittings & Appurtenances 15%				90,653.40
<b>II. LABOR AND CARPENTRY WORKS:</b>				
b. Excavation & Restoration Cost	3,204.00	mtrs	90.00	288,360.00
Sub-Total				288,360.00
<b>TOTAL PROJECT COST</b>				<b>983,369.40</b>

This project is expected to serve 17% of Brgy. Buntongan estimated population by 2017 or 334 people (67 households).

### TIMELINE OF ACTIVITIES

Activities	2018											
	1			2			3			4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Buntongan Expansion Project</b>												
<i>Right of Way</i>												
<i>Sticking</i>												
<i>Pipe and materials' delivery to site area</i>												
<i>Excavation and pipe laying</i>												
<i>Back filling</i>												
<i>Flushing and turn-over of the project</i>												

## 3. Proposed Regularization (2018)



Position Title	Salary Grade	Rate
Administrative Services Aide	4	12,674.00
Water Resource Facilities Tender B (2)	4	12,674.00
Engineering Aide B	4	12,674.00
Customer Service Assistant E	4	12,674.00

#### 4. Proposed Promotion (2018)

Position Title (From)	Position Title (To)	Salary Grade (From)	Salary Grade (To)	Rate (Php)
Customer Service Assistant B	Customer Service Officer B	10	12	22,149.00
Water Resource Facilities Tender A	Customer Service Assistant C	5	8	16,282.00
Industrial Relations Mgt. Aide	Industrial Relations Mgt. Assistant B	4	6	14,340.00

#### 5. Proposed WWD Re-categorization (2019)

Position Title	Salary Grade	Rate (Php)
General Manager C	26	107,444.00
Driver	4	13,214.00
Administrative Services Officer B	14	27,755.00
Industrial Relations Management Assistant B	8	16,758.00
Administrative Services Aide	4	13,214.00
Storekeeper C	6	14,847.00
Data Encoder	7	15,738.00
Clerk Processor D	4	13,214.00
Customer Service Officer B	14	27,755.00
Customer Service Assistant E	4	13,214.00
Customer Service Assistant B	10	19,233.00
Customer Service Assistant D	6	14,847.00
Senior Accounting Processor B	10	19,233.00
Collection Assistant	6	14,847.00
Engineering Assistant A	10	19,233.00
Engineering Aide A	6	14,847.00
Water/Sewerage Maintenance Man C (2)	4	13,214.00
Water Resource Facilities Tender B (2)	4	13,214.00

#### 6. Proposed Regularization (2020)

Position Title	Salary Grade	Rate
Courier	2	11,761.00
Water Resource Facilities Tender B (2)	4	13,214.00

Utility Worker B	1	11,068.00
Storekeeper D	4	13,214.00

#### 7. Proposed Promotion (2021)

Position Title (From)	Position Title (To)	Salary Grade (From)	Salary Grade (To)	Rate (Php)
Administrative Services Aide	Accounting Processor B	4	6	14,847.00
Industrial Relations Mgt. Assistant B	Secretary	6	9	17,975.00
Customer Service Officer B	Customer Service Officer A	14	16	33,584.00
Senior Accounting Processor B	Senior Accounting Processor A	10	12	22,938.00
Engineering Assistant A	Engineer B	10	12	22,938.00
Administrative Services Officer B	Administrative Services Officer A	14	16	33,584.00

#### 8. Other Proposed Capital Expenditures (ICG)

Project	2018	2019	2020	2021
Transmission Lines	1,500,000.00	1,500,000.00	1,500,000.00	1,500,000.00
Valves			500,000.00	500,000.00
Water Meters	200,000.00		300,000.00	300,000.00
Motorcycles	160,000.00		250,000.00	
Backhoe		1,500,000.00		
Acetylene, etc.			200,000.00	
Service Vehicle				2,000,000.00
Computers			400,000.00	
Building Renovation			500,000.00	500,000.00
Resort Development	500,000.00		500,000.00	500,000.00

#### 9. A mark-up of 5% on the existing rate (2021)

CLASSIFICATION	CODE	EXISTING MINIMUM RATE	MARKED-UP RATE
Residential	102	145	153
Government	202	145	153
Commercial (full)	302	290	306
Commercial A	312	254	267
Commercial B	322	218	229
Commercial C	332	181	191
Bulk	402	435	459

#### 10. We are also looking into strengthening our promotional drive / campaign.

*A. Promotion I (Anniversary Promo)*

Any prospected concessionaire who avail of this limited promo may:

- I. Pay a partial payment of P500.00 and pay the remaining balance of P200.00 every month for the next 15 months. (The regular payment scheme is: DP\_P1,500.00 and P500.00 every month for the next 4 months.)
- II. A discounted installation fee of P2,500.00 will be charged but with the following conditions:
  - a. The prospected concessionaires may pay it in full or in an installment basis.
  - b. Installment Payment Scheme: DP\_P500.00 and pay the remaining balance at P500.00 every month for the next 4 months.
  - c. The concessionaires who availed of this limited promo cannot disconnect the service whether voluntary or involuntary for a period of 2 years. Otherwise, they will be penalized. (Penalty\_P800.00 on top of the reconnection fee.)

*B. Promotion II (Christmas Promo)*

- I. Any prospected concessionaire who apply within this limited period is given a raffle coupon which will give them a chance to win any of the following prizes.
  - a. Flat Iron
  - b. Stand Fan
  - c. Rice Cooker
  - d. Grocery Items
- II. Concessionaires who pay in full within this limited period is given a chance to win grocery items using the “Bunot2x System”.

**AVAILABILITY OF SERVICE**

To better serve the concessionaires and fasten collection, the district is open to public from 7:00 A.M. to 5:00 P.M., without noon break. The concessionaires can also reach the office for their maintenance concerns thru the following hotlines and websites:

(Globe)–0916 186 0375;

(Smart) – 0908 865 8299

Website: [www. waowaterdistrict.com](http://www.waowaterdistrict.com)

Facebook page: Wao Water District.

## FACILITIES

The district is equipped with computers and its accessories, surveillance cameras, air conditioning units, transportation vehicles and accommodating staffs who are always ready to serve.



## WWD OPERATION CYCLE

## ORDERING

*Prepare Purchase Request (PR) and Request for Quotation (RFQ), at least 3 forms for the suppliers to be canvass. If the amount of the materials to be ordered is at least P50,000.00 and above, it should be posted to the PHILGEPS Website. Prepare Purchase Order (PO) after the canvass or posting to PHILGEPS is made. Delivery date should be 15 days from the PO date.*



### RECEIVING

*Upon receipt, double check the materials against the PO or Delivery Receipt to ensure that we receive the ordered materials completely.*



### RELEASING AND MONITORING

*Fill-up Store Requisition Slip and clearly indicate the purpose of its use: New Connection, Maintenance and Sold Items. Perform regular inventory of the materials and supplies to maintain efficiency and effectiveness of the operation.*



#### NEW CONNECTIONS/ INSTALLATIONS

Installation of new service application  
Installation of Water System



#### MAINTENANCE

*Repairs and maintenance of transmission lines, mainlines, lateral and distribution lines and Sanitation*



#### SALE OF MATERIALS

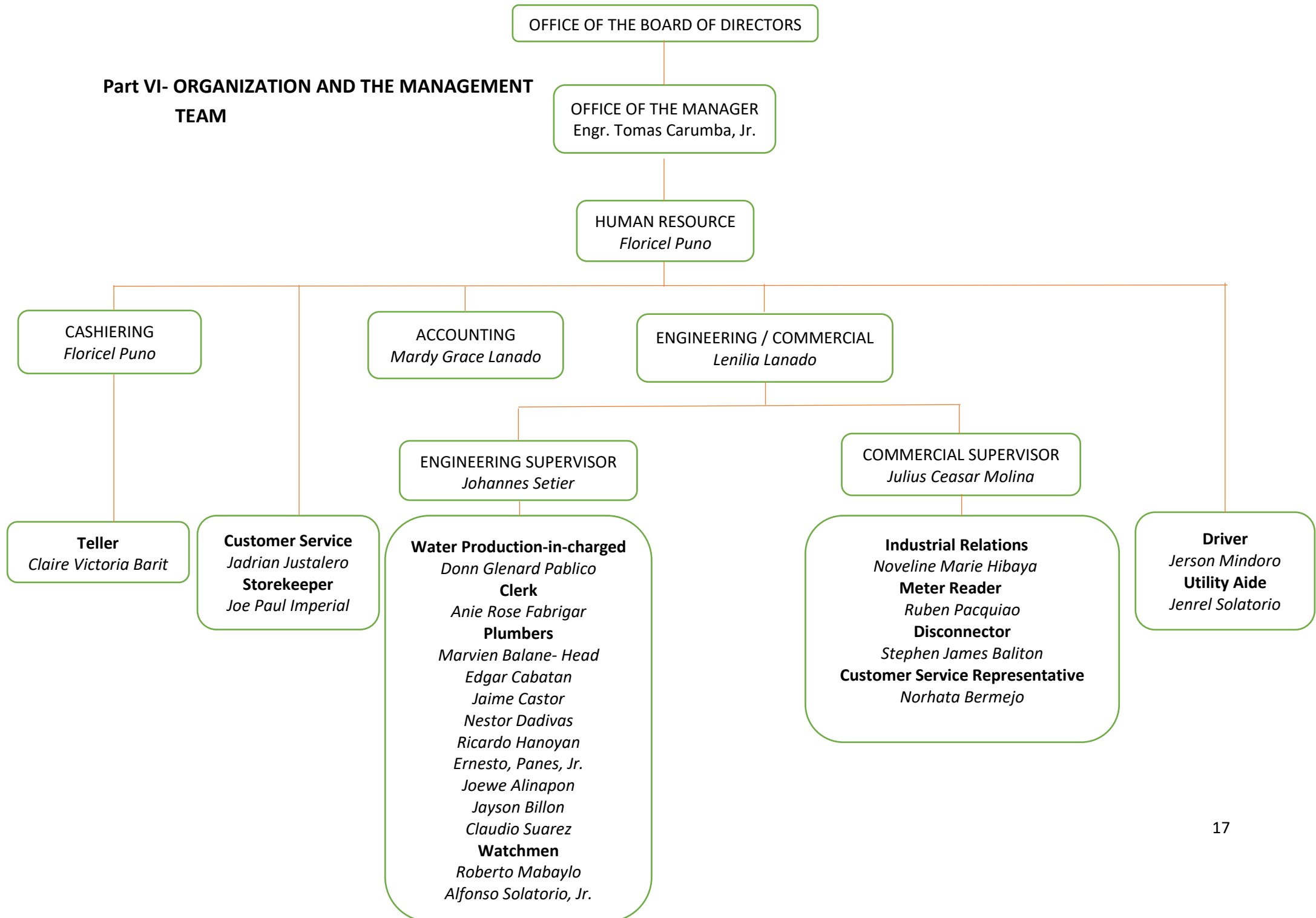
*Mark-up 30%*



### BILLING AND COLLECTION

Meter reading will be conducted as scheduled per zone  
Due date is 15 days from the date of reading  
10% penalty will be automatically imposed on unpaid bills.  
The account will be disconnected once the account becomes past due and a reconnection fee of P200 will be charged on top of the concessionaire's balance.

**Part VI- ORGANIZATION AND THE MANAGEMENT TEAM**



# **Annex 1 STAFF LIST (2016)**

Position	Code	No.	Name	Last Name	Date of Birth	Date of Employment	Gender	Profession	Education	Monthly Salary (PhP)	SG	Code
General Manager	1	1	Tomas, Jr.	Carumba	05/30/65	02/15/10	Male	Mechanical Engineer	Baccalaureate Degree	57,308	24	1
Customer Service Assistant B	2	1	Florice	Puno	11/28/78	08/02/99	Female	Computer Secretarial	Baccalaureate Degree	17,730	10	2
Accounting Processor B	3	1	Mardy Grace	Lanado	10/07/85	06/01/15	Female	Management Accounting	Baccalaureate Degree	13,378	6	3
Administrative Services Officer B	4	1	Lenilia	Lanado	10/21/58	08/02/99	Female	Accountant	Baccalaureate Degree	24,141	14	4
Engineer A	5	1	Vivencio	Rodas	06/02/70	09/01/08	Male	Electronics & Computer Engineer	Baccalaureate Degree	24,108	14	5
Water Resource Facilities Tender A	6	1	Julius Cesar	Molina	04/04/77	09/26/11	Male	Computer Engineering	Baccalaureate Degree	12,488	5	6
Administrative Services Aide	7	1	Claire Victoria	Barit	10/31/85	09/29/04	Female	Office Administration	Baccalaureate Degree	11,658	4	7
Water Resource Facilities Tender B	8	1	Ruben	Pacquiao	01/25/74	06/01/15	Male	Business Administration	Baccalaureate Degree	11,658	4	8
Total										172,469		

## THE BOARD OF DIRECTORS

***DIR. ANGELITA L. YUTIG***

Chairperson of the Board  
Education Sector Representative



***DIR. PABLO P. PASCO***

Vice-chairman of the Board  
Professional Sector Representative



***DIR. JOSEPHINE B. ATA***

Secretary to the Board  
Business Sector Representative



***DIR. MARCELINA S. BALISTA***

Treasurer  
Women Sector Representative



***DIR. ROGELIO R. MUSICO***

Auditor  
Civic Sector Representative



## POWER, DUTIES AND LIMITATIONS OF THE BOARD

As per Sec. 17, Chapter V of PD 198: "All powers, privileges, and duties of the district shall be exercised and performed by and through the board: Provided, however, that any executive, administrative or ministerial power shall be delegated and redelegated by the board to officers or agents designated for such purpose by the board."

Sec. 18, Chapter V of PD 198: "The board shall not engage in the detailed management of the district."



## **THE GENERAL MANAGER**

Engr. Tomas C. Carumba, Jr. was born on May 30, 1965 at Wao, Lanao del Sur. He earned the degree of Bachelor of Science in Mechanical Engineering on 1987 at Cagayan Capitol College and got his license to practice his profession on the same year. He then married Tecelyn Banaynal and were blessed with five beautiful children.

He has been connected to various government offices since 1988 to 1998 as the youngest Municipal Councilor. He then became a private consultant and a farmer from 1998 to 2004 until he was appointed as one of the board of directors of Wao Water District from 2004 to 2009, a concurrent position when he was still a regular employee as Head of Wao Development Corporation (2004-2010).



Since February 2010, he has been spearheading the operation of Wao Water District as the General Manager which has been continually growing and developing into a bigger district.

## **DUTIES OF THE GENERAL MANAGER**

Sec. 24, Chapter VI of PD 198: “The General Manager shall have the full supervision and control of the maintenance and operation of water district facilities, with power and authority to appoint all personnel of the district; provided that the appointment of personnel in the supervisory level shall be subject to the approval by the board (as amended by Sec. 10, PD 768).

## **Part VII- FINANCIAL PLANS AND PROJECTIONS**

### **ASSUMPTIONS:**

1. The Joint Water Supply project between WWD and Brgy. Pagalongan was completed and operational by 2017.
2. A 25% rate adjustment will be applied on 2018 and another 5% on 2021.
3. The district has allocated Php983,369.40 for the Buntongan Expansion Project for 2018 (ICG) which is estimated to be operational on the 2<sup>nd</sup> quarter of the year.
4. Proposed additional (5) regular employees by 2018
5. Proposed re-categorization by 2019 for a total of 20 regular employees.
6. Proposed additional (5) regular employees by 2020.
7. Proposed Promotions for (6) regular employees by 2021.
8. Proposed CAPEX (see page 13 for details).
9. The district has an existing loan with LWUA with annual amortization of Php417,660.00 (fully paid on 2021) and with LBP with a decreasing Annual amortization of Php585,332.48 (ave).

## Annex 2 STAFF ANALYSIS

No.	Position	Year 2016 (Base Year)			Year 2017			Year 2018			Year 2019			Year 2020			Year 2021		
		No	Monthly Base Pay	Annual Cost	No	Monthly Base Pay	Annual Cost	No	Monthly Base Pay	Annual Cost	No	Monthly Base Pay	Annual Cost	No	Monthly Base Pay	Annual Cost	No	Monthly Base Pay	Annual Cost
1	General Manager D	1	57,308	687,696	1	65,296	783,552	1	74,397	892,764	0	74,397	0.00	0	74,397	0	0	74,397	0
2	Customer Service Assistant B	1	17,730	212,760	1	18,217	218,604	0	18,718	0	1	19,233	230,796.00	1	19,233	230,796	0	19,233	0
3	Accounting Processor B	1	13,378	160,536	1	13,851	166,212	1	14,340	172,080	0	14,847	0.00	0	14,847	0	1	14,847	178,164
4	Administrative Services Officer B	1	24,141	289,692	1	25,290	303,480	1	26,494	317,928	1	27,755	333,060.00	1	27,755	333,060	0	27,755	0
5	Engineer A	1	24,108	289,296	1	29,920	359,040	0	26,806	0	0	26,806	0.00	0	26,806	0	0	26,806	0
6	Water Resource Facilities Tender A	1	12,488	149,856	1	12,975	155,700	0	13,481	0	0	17,975	0.00	0	17,975	0	0	17,975	0
7	Administrative Services Aide	1	11,658	139,896	1	12,155	145,860	2	12,674	304,176	1	13,214	158,568.00	1	13,214	158,568	0	13,214	0
8	Water Resource Facilities Tender B	1	11,658	139,896	1	12,155	145,860	3	12,674	456,264	2	13,214	317,136.00	4	13,214	634,272	4	13,214	634,272
9	Industrial Relations Mgt. Aide	0	12,155	0	1	12,155	145,860	0	12,674	0	0	13,214	0.00	0	13,214	0	0	13,214	0
10	Engineering Aide B	0	12,155	0	1	12,155	145,860	2	12,674	304,176	0	13,214	0.00	0	13,214	0	0	13,214	0
11	Customer Service Assistant E	0	12,155	0	1	12,155	145,860	2	12,674	304,176	1	13,214	158,568.00	1	13,214	158,568	1	13,214	158,568
12	Division Manager C	0	65,319	0	0	65,319	0	0	65,319	0	0	65,319	0.00	0	65,319	0	0	65,319	0
13	Industrial Relations Mgt. Assistant B	0	16,282	0	0	16,282	0	1	16,282	195,384	1	16,758	201,096.00	1	16,758	201,096	0	16,758	0
14	Property/Supply Assistant B	0	16,758	0	0	16,758	0	0	16,758	0	0	17,248	0.00	0	17,248	0	0	17,248	0
15	Secretary	0	17,975	0	0	17,975	0	0	17,975	0	0	17,975	0.00	0	17,975	0	1	17,975	215,700
16	Driver	0	13,214	0	0	13,214	0	0	13,214	0	1	13,214	158,568.00	1	13,214	158,568	1	13,214	158,568
17	Industrial Security Guard C	0	12,466	0	0	12,466	0	0	12,466	0	0	13,044	0.00	0	13,044	0	0	13,044	0
18	Utility Worker B	0	11,068	0	0	11,068	0	0	11,068	0	0	11,068	0.00	1	11,068	132,816	1	11,068	132,816
19	Corporate Budget Analyst B	0	22,938	0	0	22,938	0	0	22,938	0	0	22,938	0.00	0	22,938	0	0	22,938	0
20	Cashier D	0	17,730	0	0	17,730	0	0	17,730	0	0	18,574	0.00	0	18,574	0	0	18,574	0
21	Customer Service Officer B	0	26,494	0	0	26,494	0	1	26,494	317,928	1	27,755	333,060.00	1	27,755	333,060	0	27,755	0
22	Water/Sewerage Maintenance Man C	0	12,674	0	0	12,674	0	0	12,674	0	2	13,214	317,136.00	2	13,214	317,136	2	13,214	317,136
23	Engineering Aide A	0	14,340	0	0	14,340	0	1	14,340	172,080	1	14,847	178,164.00	1	14,847	178,164	1	14,847	178,164
24	Storekeeper C	0	14,847	0	0	14,847	0	0	14,847	0	1	14,847	178,164.00	1	14,847	178,164	1	14,847	178,164
25	Water/Sewerage Maintenance Head	0	33,584	0	0	33,584	0	0	33,584	0	0	34,566	0.00	0	34,566	0	0	34,566	0
26	Customer Service Assistant C	0	12,674	0	1	12,674	152,088	1	16,282	195,384	0	16,282	0.00	0	16,282	0	0	16,282	0
27	Administrative Services Officer A	0	33,584	0	0	33,584	0	0	33,584	0	0	33,584	0.00	0	33,584	0	1	33,584	403,008
28	Customer Service Assistant D	0	14,847	0	0	14,847	0	0	14,847	0	1	14,847	178,164.00	1	14,847	178,164	1	14,847	178,164
29	Collection Assistant	0	14,847	0	0	14,847	0	0	14,847	0	1	14,847	178,164.00	1	14,847	178,164	1	14,847	178,164
30	Senior Accounting Processor B	0	19,233	0	0	19,233	0	0	19,233	0	1	19,233	230,796.00	1	19,233	230,796	0	19,233	0

31	Engineering Assistant A	0	19,233	0	0	19,233	0	0	19,233	0	1	19,233	230,796.00	1	19,233	230,796	0	19,233	0
32	Clerk Processor C	0	13,214	0	0	13,214	0	0	13,214	0	1	13,214	158,568.00	1	13,214	158,568	1	13,214	158,568
33	Data Encoder	0	15,738	0	0	15,738	0	0	15,738	0	1	15,738	188,856.00	1	15,738	188,856	1	15,738	188,856
34	Storekeeper D	0	13,214	0	0	13,214	0	0	13,214	0	0	13,214	0.00	1	13,214	158,568	1	13,214	158,568
35	General Manager C	0	107,444	0	0	107,444	0	0	107,444	0	1	107,444	1,289,328.00	1	107,444	1,289,328	1	107,444	1,289,328
36	Customer Service Officer A	0	33,584	0	0	33,584	0	0	33,584	0	0	33,584	0.00	0	33,584	0	1	33,584	403,008
37	Courier	0	11,761	0	0	11,761	0	0	11,761	0	0	11,761	0.00	1	11,761	141,132	1	11,761	141,132
38	Senior Accounting Processor A	0	22,938	0	0	22,938	0	0	22,938	0	0	22,938	0.00	0	22,938	0	1	22,938	275,256
39	Customer Service Assistant A	0	22,938	0	0	22,938	0	0	22,938	0	0	22,938	0.00	0	22,938	0	1	22,938	275,256
40	Engineer B	0	22,938	0	0	22,938	0	0	22,938	0	0	22,938	0.00	0	22,938	0	1	22,938	275,256
	Total Staff Cost/ Year (PhP)	8		2,069,628	12		2,867,976	16		3,632,340	20		5,018,988	25		5,768,640	25		6,076,116
	Annual % Increase in Labor Cost				38.6%			26.7%			38.2%			14.9%			5.3%		
	No of connections (Water+Sewer)	3,810	3,996			4,218			4,492			4,729			4,933				
	Staff/1000 conn.	2.10	3.00			3.79			4.45			5.29			5.07				

No.	Salaries Index	2017	2018	2019	2020	2021
1	General Manager D	13.94%	13.94%	0.00%	0.00%	0.00%
2	Customer Service Assistant B	2.75%	2.75%	2.75%	0.00%	0.00%
3	Accounting Processor B	3.54%	3.53%	3.54%	0.00%	0.00%
4	Administrative Services Officer B	4.76%	4.76%	4.76%	0.00%	0.00%
5	Engineer A	24.11%	-10.41%	0.00%	0.00%	0.00%
6	Water Resource Facilities Tender A	3.90%	3.90%	33.34%	0.00%	0.00%
7	Administrative Services Aide	4.26%	4.27%	4.26%	0.00%	0.00%
8	Water Resource Facilities Tender B	4.26%	4.27%	4.26%	0.00%	0.00%
9	Industrial Relations Mgt. Aide	0.00%	4.27%	4.26%	0.00%	0.00%
10	Engineering Aide B	0.00%	4.27%	4.26%	0.00%	0.00%
11	Customer Service Assistant E	0.00%	4.27%	4.26%	0.00%	0.00%
12	Division Manager C	0.00%	0.00%	0.00%	0.00%	0.00%
13	Industrial Relations Mgt. Assistant B	0.00%	0.00%	2.92%	0.00%	0.00%
14	Property/Supply Assistant B	0.00%	0.00%	2.92%	0.00%	0.00%
15	Secretary	0.00%	0.00%	0.00%	0.00%	0.00%
16	Driver	0.00%	0.00%	0.00%	0.00%	0.00%
17	Industrial Security Guard C	0.00%	0.00%	4.63%	0.00%	0.00%

18	Utility Worker B	0.00%	0.00%	0.00%	0.00%	0.00%
19	Corporate Budget Analyst B	0.00%	0.00%	0.00%	0.00%	0.00%
20	Cashier D	0.00%	0.00%	4.76%	0.00%	0.00%
21	Customer Service Officer B	0.00%	0.00%	4.76%	0.00%	0.00%
22	Water/Sewerage Maintenance Man C	0.00%	0.00%	4.26%	0.00%	0.00%
23	Engineering Aide A	0.00%	0.00%	3.54%	0.00%	0.00%
24	Storekeeper C	0.00%	0.00%	0.00%	0.00%	0.00%
25	Water/Sewerage Maintenance Head	0.00%	0.00%	2.92%	0.00%	0.00%
26	Customer Service Assistant C	0.00%	28.47%	0.00%	0.00%	0.00%
27	Administrative Services Officer A	0.00%	0.00%	0.00%	0.00%	0.00%
28	Customer Service Assistant D	0.00%	0.00%	0.00%	0.00%	0.00%
29	Collection Assistant	0.00%	0.00%	0.00%	0.00%	0.00%
30	Senior Accounting Processor B	0.00%	0.00%	0.00%	0.00%	0.00%
31	Engineering Assistant A	0.00%	0.00%	0.00%	0.00%	0.00%
32	Clerk Processor C	0.00%	0.00%	0.00%	0.00%	0.00%
33	Data Encoder	0.00%	0.00%	0.00%	0.00%	0.00%
34	Storekeeper D	0.00%	0.00%	0.00%	0.00%	0.00%
35	General Manager C	0.00%	0.00%	0.00%	0.00%	0.00%
36	Customer Service Officer A	0.00%	0.00%	0.00%	0.00%	0.00%
37	Courier	0.00%	0.00%	0.00%	0.00%	0.00%
38	Senior Accounting Processor A	0.00%	0.00%	0.00%	0.00%	0.00%
39	Customer Service Assistant A	0.00%	0.00%	0.00%	0.00%	0.00%
40	Engineer B	0.00%	0.00%	0.00%	0.00%	0.00%

### Annex 3 WATER DEMAND ANALYSIS

	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
	Base Year					
<b>POPULATION/CUSTOMER PROFILE</b>						
Population in the City/Municipality/Franchise Area	46,467	47,081	47,702	48,332	48,970	49,616
Population Served by Other Water Service Provider(s)	17,876	16,812	16,700	16,920	14,924	15,121
Serviceable Population	28,591	30,269	31,002	31,412	34,046	34,496
Population Served by Registered Residential Connections	16,905	17,677	18,614	19,789	20,768	21,560
Unserved Population	11,686	12,592	12,389	11,622	13,278	12,936
% of Population Provided with Water Service	59%	58%	60%	63%	61%	63%
<b>NUMBER OF REGISTERED SERVICE CONNECTIONS:</b>						
<b>Total Number of Registered Connections</b>	<b>3,810</b>	<b>3,996</b>	<b>4,218</b>	<b>4,492</b>	<b>4,729</b>	<b>4,933</b>
<b>A. Registered Active Residential Connections</b>	<b>3,381</b>	<b>3,535</b>	<b>3,723</b>	<b>3,958</b>	<b>4,154</b>	<b>4,312</b>
Metered Residential Connections	3,381	3,535	3,723	3,958	4,154	4,312
Non-metered Residential Connections	0	0	0	0	0	0
% Metered Residential Connections	100%	100%	100%	100%	100%	100%
Number of New Metered Residential Connections per Year		154	187	235	196	158
<b>B. Registered Active Commercial Connections:</b>						
<b>B.1 Commercial Connection:</b>	<b>98</b>	<b>108</b>	<b>119</b>	<b>130</b>	<b>143</b>	<b>158</b>
Metered Connections	98	108	119	130	143	158
Non-metered Connections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
No. of New Metered Commercial Connections per Year		10	11	12	13	14
<b>B.2 Commercial A Connections</b>	<b>22</b>	<b>24</b>	<b>27</b>	<b>29</b>	<b>32</b>	<b>35</b>
Metered Connections	22	24	27	29	32	35
Non-metered Connections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
No. of New Metered Commercial A Connections per Year		2	2	3	3	3
<b>B.3 Commercial B Connections</b>	<b>73</b>	<b>80</b>	<b>88</b>	<b>97</b>	<b>107</b>	<b>118</b>
Metered Connections	73	80	88	97	107	118
Non-metered Connections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
No. of New Metered Commercial B Connections per Year		7	8	9	10	11
<b>B.4 Commercial C Connections</b>	<b>112</b>	<b>123</b>	<b>136</b>	<b>149</b>	<b>164</b>	<b>180</b>
Metered Connections	112	123	136	149	164	180
Non-metered Connections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
No. of New Metered Commercial C Connections per Year		11	12	14	15	16

<b>C. Registered Institutional/Government Connections</b>	<b>123</b>	<b>124</b>	<b>125</b>	<b>127</b>	<b>128</b>	<b>129</b>
Metered Connections	123	124	125	127	128	129
Non-metered Connections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
No. of New Metered Institutional/Gov't Connections per Year		1	1	1	1	1
<b>D. Registered Active Industrial Connections</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Metered Connections	0	0	0	0	0	0
Non-meteredConnections	0	0	0	0	0	0
% Metered Connections	0%	0%	0%	0%	0%	0%
Number of New Metered Industrial Connections per Year		0	0	0	0	0
<b>E. Registered Active Bulk/Wholesale Connections</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Metered Connections	1	1	1	1	1	1
Non-meteredConnections	0	0	0	0	0	0
% Metered Connections	100%	100%	100%	100%	100%	100%
Number of New Metered Bulk Connections per Year		0	0	0	0	0
<b>TOTAL ANNUAL WATER SALES - VOLUME (m3/year)</b>						
<b>Total Water Consumption per year (m3/year)</b>	785,198	871,782	974,208	1,098,163	1,227,022	1,362,067
<b>A. Total Residential Consumption (m³/year)</b>	629,796	694,845	771,985	865,959	958,869	1,050,263
Metered Residential Water Sales	629,796					
Non-metered Residential Water Sales	0					
<b>B. Total Commercial Consumption (m³/year)</b>						
<b>B.1 Total Commercial Consumption (m³/year)</b>	45,282	50,308	55,893	62,097	68,989	76,647
Metered Water Sales	45,282					
Non-metered Water Sales	0					
<b>B.2 Total Commercial A Consumption (m³/year)</b>	5,586	6,206	6,895	7,660	8,511	9,455
Metered Water Sales	5,586					
Non-metered Water Sales	0					
<b>B.3 Total Commercial B Consumption (m³/year)</b>	19,770	21,964	24,403	27,111	30,121	33,464
Metered Water Sales	19,770					
Non-metered Water Sales	0					
<b>B.4 Total Commercial C Consumption (m³/year)</b>	23,309	25,896	28,771	31,964	35,512	39,454
Metered Water Sales	23,309					
Non-metered Water Sales	0					

<b>C. Total Institutional Consumption (m³/year)</b>	54,110	61,942	70,907	81,169	92,917	106,365
Metered Water Sales	54,110					
Non-metered Water Sales	0					
<b>D. Total Industrial Consumption (m³/year)</b>	0	0	0	0	0	0
Metered Water Sales	0					
Non-metered Water Sales	0					
<b>E. Total Bulk/Wholesale Consumption (m³/year)</b>	7,345	10,620	15,356	22,203	32,103	46,418
Metered Water Sales	7,345					
Non-metered Water Sales	0					
<b>AVE. MONTHLY CONSUMPTION PER CONN. (m³/month)</b>						
Residential	16	16	17	18	19	20
Commercial	39	39	39	40	40	40
Commercial A	21	21	22	22	22	22
Commercial B	23	23	23	23	23	24
Commercial C	17	18	18	18	18	18
Institutional	37	42	47	53	60	69
Industrial	0	0	0	0	0	0
Bulk/Wholesale	612	885	1,280	1,850	2,675	3,868
<b>Per Capita Domestic/Residential Consumption (lpcd)</b>	102	108	114	120	126	133
<b>TOTAL CONSUMPTION PER DAY (m³/day)</b>						
Total Daily Consumption (m³/day)	2,151	2,388	2,669	3,009	3,362	3,732
<b>Total (m³/day)</b>	2,151	2,388	2,669	3,009	3,362	3,732
<b>NON-REVENUE WATER (NRW)</b>						
Allowance for % NRW (%)	28%	20%	20%	20%	20%	20%
<b>NRW (m³/day)</b>	837	597	667	752	840	933
<b>AVERAGE DAY DEMAND</b>						
Produced Water (m³/day)	2,988	2,986	3,336	3,761	4,202	4,665
Purchased Water from Other Water Provider(m³/day)	0	0	0	0	0	0
<b>Total Water to System (m³/day)</b>	2,988	2,986	3,336	3,761	4,202	4,665

<b>Projected Population Annual Increase (%)</b>	<b>1.32%</b>
<b>Projected Commercial Connection Increase (%)</b>	<b>10.00%</b>
<b>Projected Institutional/Gov't Connection Increase (%)</b>	<b>1.00%</b>
<b>Projected Industrial Connection Increase (%)</b>	<b>0.00%</b>
<b>Projected Bulk Connection Increase (%)</b>	<b>0.00%</b>
<b>Projected Annual Increase in Per Capita Consumption (%)</b>	<b>5.51%</b>
<b>Projected Increase in consumption per Commercial Conn. (%)</b>	<b>1.00%</b>
<b>Projected Increase in consumption per Gov./Inst. Conn. (%)</b>	<b>13.34%</b>
<b>Projected Increase in consumption per Industrial Conn. (%)</b>	<b>0.00%</b>
<b>Projected Bulk Consumption Annual Increase (%)</b>	<b>44.59%</b>
<b>Number of Persons per Residential Connection</b>	<b>5.00</b>



#### Annex 4 OPERATING AND MAINTENANCE BUDGET FORECAST

Expenses	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
<b>Salaries</b>	<b>Base Year (PhP)</b>	<b>(PhP)</b>	<b>(PhP)</b>	<b>(PhP)</b>	<b>(PhP)</b>	<b>(PhP)</b>
Annual Base Salary	2,069,628	2,867,976	3,632,340	5,018,988	5,768,640	6,076,116
Overtime	0	30,000	30,000	0	20,000	30,000
13th Month Pay	345,514	477,996	605,390	836,498	961,440	1,012,686
Bonuses	202,000	465,996	564,312	789,148	909,102	950,099
Other Compensation	704,293	901,400	555,200	748,000	856,800	856,800
Board of Directors' Expenses	315,967	488,336	682,880	478,800	478,800	478,800
Other Board Members' Compensation	0	0	0	0	0	0
<b>Sub Total (1)</b>	<b>3,637,402</b>	<b>5,231,704</b>	<b>6,070,122</b>	<b>7,871,434</b>	<b>8,994,782</b>	<b>9,404,501</b>
<b>Personnel Costs</b>						
GSIS	247,473	344,157	435,881	602,279	692,237	729,134
Philhealth	21,975	43,200	57,600	72,000	86,400	86,400
Pag-ibig	9,600	14,400	19,200	24,000	28,800	28,800
Employee Compensation	9,600	14,400	19,200	24,000	28,800	28,800
Training	93,000	274,000	530,685	800,000	800,000	800,000
<b>Sub Total (2)</b>	<b>381,648</b>	<b>690,157</b>	<b>1,062,566</b>	<b>1,522,279</b>	<b>1,636,237</b>	<b>1,673,134</b>
<b>Expenditures</b>						
Maintenance	3,031,351	3,186,040	3,580,000	3,100,000	3,000,000	2,900,000
Materials	0	0	0	0	0	0
Chemicals	219,593	303,800	420,277	581,411	804,324	965,189
Electrical Energy	117,128	144,000	177,034	217,645	267,573	321,087
Security Services	0	0	0	0	240,000	240,000
Other Contracted Services	0	0	0	0	0	0
Transport (fuel, oil, vehicle insurance)	229,277	240,000	480,000	500,000	505,000	510,000
Office and Administrative	1,706,965	1,542,000	1,720,330	2,319,299	2,610,320	3,016,114
Taxes (Premiums and other fees)	278,123	276,212	275,000	280,000	300,000	312,000
Purchased Water	0	0	0	0	0	0
UV	0	0	0	0	0	0
Other Expenditures	35,678	102,600	100,000	100,000	80,000	100,000
Public Relations	0	0	0	0	0	0
O&M Contingency	0	0	0	0	0	0
<b>Sub Total (3)</b>	<b>5,618,115</b>	<b>5,794,652</b>	<b>6,752,641</b>	<b>7,098,355</b>	<b>7,807,217</b>	<b>8,364,390</b>
<b>Total Operation and Maintenance (1+2+3)</b>	<b>9,637,166</b>	<b>11,716,513</b>	<b>13,885,329</b>	<b>16,492,068</b>	<b>18,438,236</b>	<b>19,442,025</b>

Norms	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
GSIS (% on Base Salary)	11.96%	12.00%	12.00%	12.00%	12.00%	12.00%
Philhealth (% on Base Salary)	1.06%	1.51%	1.59%	1.43%	1.50%	1.42%
Pag-ibig (% on Base Salary)	0.46%	0.50%	0.53%	0.48%	0.50%	0.47%
Employee Compensation (% on Base Salary)	0.46%	0.50%	0.53%	0.48%	0.50%	0.47%
Overtime (% on Base Salary)	0.00%	1.05%	0.83%	0.00%	0.35%	0.49%
13th Month Pay (% on Base Salary)	16.69%	16.67%	16.67%	16.67%	16.67%	16.67%
Bonuses (% on Base Salary)	9.76%	16.25%	15.54%	15.72%	15.76%	15.64%
Other Compensations (% on Base Salary)	34.03%	31.43%	15.28%	14.90%	14.85%	14.10%
Training (% on Base Salary)	4.49%	9.55%	14.61%	15.94%	13.87%	13.17%
Public Relations (PhP/year/connection)	0.00	0.00	0.00	0.00	0.00	0.00
Chemicals (PhP/m <sup>3</sup> Produced)	0.20	0.38	0.38	0.38	0.38	0.20
Electrical Energy (PhP/m <sup>3</sup> Produced)	0.11	0.13	0.15	0.16	0.17	0.19
Purchased Water Rate (PhP/m <sup>3</sup> )	0	0	0	0	0	0
<b>Increasing/Decreasing Rates (%)</b>						
Board of Directors' Compensation	15.27%	54.55%	39.84%	-29.89%	0.00%	0.00%
Other Board Members' Compensation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Maintenance	53.96%	5.10%	12.37%	-13.41%	-3.23%	-3.33%
Materials	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Security Services	0.00%	0.00%	0.00%	0.00%	4.16%	0.00%
Other Contracted Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transport (fuel, oil, vehicle insurance)	4.08%	4.68%	100.00%	4.17%	1.00%	0.99%
Office and Administrative	30.38%	-9.66%	11.56%	34.82%	12.55%	15.55%
Taxes (Premiums and other fees)	4.95%	-0.69%	-0.44%	1.82%	7.14%	4.00%
Other Expenditures	0.64%	187.57%	-2.53%	0.00%	-20.00%	25.00%

## Annex 5 CAP INVESTMENT PROGRAM

	Qty.	Unit Cost	Total Cost	2016	2017	2018	2019	2020	2021
				Base Year					
Item			2017-2021						
<b>Capital Renewal</b>									
Source Facilities	1	LS	0						
Treatment Facilities	1	LS	0						
Main Transmission	1	LS	6,983,369			2,483,369	1,500,000	1,500,000	1,500,000
Distribution Network	1	LS	0		0	0	0	0	0
Valves	1	LS	1,000,000	0			0	500,000	500,000
Water Meters	1	LS	800,000	0		200,000		300,000	300,000
			0						
			0						
<b>Total Capital Renewal Expenditures</b>			8,783,369	0	0	2,683,369	1,500,000	2,300,000	2,300,000
<b>Capital Repair and Replacement</b>									
Fixed Operating Equipments	1	LS	0	0	0	0	0	0	0
Movable Operating Equipments	1	LS	4,110,000			160,000	1,500,000	450,000	2,000,000
Office and Laboratory Equipments	1	LS	400,000	218,444	0	0		400,000	
Buildings	1	LS	1,000,000	0	0	0		500,000	500,000
Structures	1	LS	1,500,000	4,474,359	0	500,000		500,000	500,000
			0						
			0						
<b>Total Capital Repair and Replacement Reserve</b>			7,010,000	4,692,803	0	660,000	1,500,000	1,850,000	3,000,000
<b>New Capital Investments</b>									
New Project No. 1 Annex/Administration	1	LS	0	0	0		0	0	0
New Project No. 2 Source Facility	1	LS	0	0	0			0	0
New Project No. 3 SpTP	1	LS	0	0	0		0	0	0
New Project No. 4 Reservoir	1	LS	0	0	0	0	0	0	0
New Project No. 5 Mainline Pipes	1	LS	0	0	0	0	0	0	0
New Project No. 6 Distribution Network	1	LS	0	0	0	0	0	0	0
	1	LS	0	0	0	0	0	0	0
<b>Total New Capital Investments</b>			0	0	0	0	0	0	0
Contribution to New Capital Investment	100%	LS	0	0	0	0	0	0	0
New Capital Investment Loans	0%	LS	0	0	0	0	0	0	0
<b>Total Capital Investments from Free Cash Flow</b>			15,793,369	4,692,803	0	3,343,369	3,000,000	4,150,000	5,300,000
<b>Capital Investments from Grants</b>									
Grant #1	1	LS	0		0	0	0	0	0
Grant #2	1	LS	0	0	0	0	0	0	0
			0						
			0						
<b>Total Capital Investments from Grants</b>			0	0	0	0	0	0	0

## Annex 6 DEBT SERVICE

Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
	<b>Base Year</b>					
	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)
<b>DEBT SERVICE</b>						
<b>EXISTING LOANS</b>						
Interest Payments	226,425	209,788	192,088	172,882	152,036	129,418
Principal Repayments	191,559	207,872	225,572	244,778	265,624	288,242
<b>Total Payments Loan #1</b>	<b>417,984</b>	<b>417,660</b>	<b>417,660</b>	<b>417,660</b>	<b>417,660</b>	<b>417,660</b>
<b>LOANS OUTSIDE LWUA (LBP)</b>						
Interest Payments	245,108	132,483	100,366	68,249	36,132	6,022
Principal Repayments	535,286	535,286	535,286	535,286	535,286	267,643
<b>Total Payments Loan #2</b>	<b>780,394</b>	<b>667,769</b>	<b>635,652</b>	<b>603,535</b>	<b>571,417</b>	<b>273,665</b>
<b>NEW CAPITAL INVESTMENTS LOANS</b>						
Interest Payments						
Principal Repayments						
<b>Total Payments Loan #3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL LOANS</b>						
Total Interest Payments	471,533	342,271	292,454	241,131	188,168	135,440
Total Principal Repayments	726,845	743,158	760,858	780,064	800,910	555,885
<b>Total Loan Payments</b>	<b>1,198,378</b>	<b>1,085,429</b>	<b>1,053,312</b>	<b>1,021,195</b>	<b>989,077</b>	<b>691,325</b>

## Annex 7 REVENUE NEEDS

Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
	<b>Base Year</b> (PhP)	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)
<b>Total Operation and Maintenance (1+2+3)</b>	<b>9,637,166</b>	<b>11,716,513</b>	<b>13,885,329</b>	<b>16,492,068</b>	<b>18,438,236</b>	<b>19,442,025</b>
<b>Debt Service</b>						
Interest Payments from Revenues	471,533	342,271	292,454	241,131	188,168	135,440
Principal Repayment from Revenues	726,845	743,158	760,858	780,064	800,910	555,885
Debt Repayment Reserve	0	0	0	0	0	0
<b>Sub Total (4)</b>	<b>1,198,378</b>	<b>1,085,429</b>	<b>1,053,312</b>	<b>1,021,195</b>	<b>989,077</b>	<b>691,325</b>
<b>Capital Expenditures</b>						
Capital Renewal Expenditures	0	0	2,683,369	1,500,000	2,300,000	2,300,000
Capital Repair and Replacement Reserve	4,692,803	0	660,000	1,500,000	1,850,000	3,000,000
New Capital Investment Reserve	0	0	0	0	0	0
<b>Sub Total (5)</b>	<b>4,692,803</b>	<b>0</b>	<b>3,343,369</b>	<b>3,000,000</b>	<b>4,150,000</b>	<b>5,300,000</b>
<b>Subsidies and Loans</b>						
Subsidies/Loans from Central/ Gov't. Banks						
<b>Sub Total (6)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Revenue Needs (1+2+3+4+5-6)</b>	<b>15,528,347</b>	<b>12,801,942</b>	<b>18,282,010</b>	<b>20,513,263</b>	<b>23,577,313</b>	<b>25,433,350</b>
<b>Debt Service Reserve</b>						
(O&M Contingency+Debt Repayment Reserve+Capital Expenditures)	4,692,803	0	3,343,369	3,000,000	4,150,000	5,300,000
Total Debt Service Reserve (as % on Adjusted Total Revenue Needs)	47.47%	0.00%	20.30%	16.03%	19.56%	21.73%

## Annex 8 PRICING

Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
	Base Year					
<b>NO. OF WATER SERVICE CONNECTIONS</b>						
Residential	3,381	3,535	3,723	3,958	4,154	4,312
Commercial	98	108	119	130	143	158
Commercial A	22	24	27	29	32	35
Commercial B	73	80	88	97	107	118
Commercial C	112	123	136	149	164	180
Institutional/Gov't	123	124	125	127	128	129
Industrial	0	0	0	0	0	0
Bulk/Wholesale	1	1	1	1	1	1
<b>Sewer Connections</b>						
Household	0	0	0	0	0	0
Commercial	0	0	0	0	0	0
Institutional/Gov't	0	0	0	0	0	0
Industrial	0	0	0	0	0	0
<b>Total No. of Connections</b>	3,810	3,996	4,218	4,492	4,729	4,933
<b>WATER SALES (m3/day)</b>						
Retail (m3/day)	2,151	2,388	2,669	3,009	3,362	3,732
Total	2,151	2,388	2,669	3,009	3,362	3,732
<b>WATER CONSUMPTION PER CONNECTION PER MONTH (m3/mo)</b>						
Residential	16	16	17	18	19	20
Commercial	39	39	39	40	40	40
Commercial A	21	21	22	22	22	22
Commercial B	23	23	23	23	23	24
Commercial C	17	18	18	18	18	18
Institutional/Gov't	37	42	47	53	60	69
Industrial	0	0	0	0	0	0
Bulk/Wholesale	612	885	1,280	1,850	2,675	3,868
<b>Commodity Consumption per connection per year (m3/year)</b>						
Residential	224,076	270,596	325,252	391,014	460,431	532,827
Commercial	33,522	37,372	41,663	46,444	51,771	57,708
Commercial A	2,946	3,302	3,701	4,146	4,645	5,203
Commercial B	11,010	12,328	13,803	15,452	17,295	19,356
Commercial C	9,869	11,112	12,508	14,076	15,835	17,809
Institutional/Gov't	39,350	47,034	55,850	65,962	77,558	90,853
Industrial	0	0	0	0	0	0
Bulk/Wholesale	7,225	10,500	15,236	22,083	31,983	46,298

Water Consumption per Connection per Category per Commodity Block (m3/mo)						
Residential						
11 - 20	6	6	7	8	9	10
21 - 30	0	0	0	0	0	0
31 - 40	0	0	0	0	0	0
41 - 50	0	0	0	0	0	0
over 50	0	0	0	0	0	0
Commercial						
11 - 20	10	10	10	10	10	10
21 - 30	10	10	10	10	10	10
31 - 40	1	9	9	10	10	10
41 - 50	0	0	0	0	10	10
over 50	0	0	0	0	0	0
Commercial A						
11 - 20	10	10	10	10	10	10
21 - 30	9	1	2	2	2	2
31 - 40	0	0	0	0	0	0
41 - 50	0	0	0	0	0	0
over 50	0	0	0	0	0	0
Commercial B						
11 - 20	10	10	10	10	10	10
21 - 30	7	3	3	3	3	4
31 - 40	0	0	0	0	0	0
41 - 50	0	0	0	0	0	0
over 50	0	0	0	0	0	0
Commercial C						
11 - 20	3	8	8	8	8	8
21 - 30	0	0	0	0	0	0
31 - 40	0	0	0	0	0	0
41 - 50	0	0	0	0	0	0
over 50	0	0	0	0	0	0
Institutional/Gov't						
11 - 20	10	10	10	10	10	10
21 - 30	10	10	10	10	10	10
31 - 40	3	10	10	10	10	10
41 - 50	0	8	3	10	10	10
over 50	0	0	0	3	10	19
Industrial						
11 - 20	0	0	0	0	0	0
21 - 30	0	0	0	0	0	0
31 - 40	0	0	0	0	0	0
41 - 50	0	0	0	0	0	0
over 50	0	0	0	0	0	0

Bulk/Wholesale						
11 - 20	10	10	10	10	10	10
21 - 30	10	10	10	10	10	10
31 - 40	10	10	10	10	10	10
41 - 50	10	10	10	10	10	10
over 50	562	835	1,230	1,800	2,625	3,818
<b>TARIFF AND FEES</b>						
Increase in Water Rates (%)		0%	25%	0%	0%	5%
Increase will start what month (1 to 12)		0	1	0	0	0
<b>Monthly Minimum Charge per Service Connection</b>						
Residential	116	116	145	145	145	153
Commercial	232	232	290	290	290	306
Commercial A	203	203	254	254	254	267
Commercial B	174	174	218	218	218	229
Commercial C	145	145	181	181	181	191
Institutional/Govt	116	116	145	145	145	153
Industrial	-	-	-	-	-	-
Bulk/Wholesale	348	348	435	435	435	459
<b>Commodity Charges (PhP/m³)</b>						
%increase in water rates		0%	25%	0%	0%	5%
<b>Residential</b>						
11 - 20	12.30	12.30	15.38	15.38	15.38	16.21
21 - 30	13.20	13.20	16.50	16.50	16.50	17.39
31 - 40	14.50	14.50	18.13	18.13	18.13	19.11
41 - 50	14.50	14.50	18.13	18.13	18.13	19.11
over 50	14.50	14.50	18.13	18.13	18.13	19.11
<b>Commercial</b>						
11 - 20	24.60	24.60	30.75	30.75	30.75	32.42
21 - 30	26.40	26.40	33.00	33.00	33.00	34.79
31 - 40	29.00	29.00	36.25	36.25	36.25	38.21
over 40	29.00	29.00	36.25	36.25	36.25	38.21
<b>Commercial A</b>						
11 - 20	21.50	21.50	26.88	26.88	26.88	28.33
21 - 30	23.10	23.10	28.88	28.88	28.88	30.44
31 - 40	25.35	25.35	31.69	31.69	31.69	33.40
41 - 50	25.35	25.35	31.69	31.69	31.69	33.40
over 50	25.35	25.35	31.69	31.69	31.69	33.40
<b>Commercial B</b>						
11 - 20	18.45	18.45	23.06	23.06	23.06	24.31
21 - 30	19.80	19.80	24.75	24.75	24.75	26.09
31 - 40	21.75	21.75	27.19	27.19	27.19	28.66
41 - 50	21.75	21.75	27.19	27.19	27.19	28.66
over 50	21.75	21.75	27.19	27.19	27.19	28.66



Commercial C							
11 - 20	15.35	15.35	19.19	19.19	19.19	20.23	
21 - 30	16.50	16.50	20.63	20.63	20.63	21.74	
31 - 40	18.10	18.10	22.63	22.63	22.63	23.85	
41 - 50	18.10	18.10	22.63	22.63	22.63	23.85	
over 50	18.10	18.10	22.63	22.63	22.63	23.85	
Institutional/Gov't							
11 - 20	12.30	12.30	15.38	15.38	15.38	16.21	
21 - 30	13.20	13.20	16.50	16.50	16.50	17.39	
31 - 40	14.50	14.50	18.13	18.13	18.13	19.11	
41 - 50	14.50	14.50	18.13	18.13	18.13	19.11	
over 50	14.50	14.50	18.13	18.13	18.13	19.11	
Industrial							
11 - 20	-	-	-	-	-	-	
21 - 30	-	-	-	-	-	-	
31 - 40	-	-	-	-	-	-	
41 - 50	-	-	-	-	-	-	
over 50	-	-	-	-	-	-	
Bulk/Wholesale							
11 - 20	36.90	36.90	46.13	46.13	46.13	48.62	
21 - 30	39.60	39.60	49.50	49.50	49.50	52.18	
31 - 40	43.50	43.50	54.38	54.38	54.38	57.32	
41 - 50	43.50	43.50	54.38	54.38	54.38	57.32	
over 50	43.50	43.50	54.38	54.38	54.38	57.32	
Total Commodity Charge per Year per block (PhP/year)							
Residential							
11 - 20	2,756,134.8	3,328,329.8	5,000,745.4	6,011,845.7	7,079,121.8	8,386,503.8	
21 - 30	0.0	0.0	0.0	0.0	0.0	267,714.4	
31 - 40	0.0	0.0	0.0	0.0	0.0	0.0	
41 - 50	0.0	0.0	0.0	0.0	0.0	0.0	
over 50	0.0	0.0	0.0	0.0	0.0	0.0	
Sub-total	2,756,134.8	3,328,329.8	5,000,745.4	6,011,845.7	7,079,121.8	8,654,218.2	
Commercial;							
11 - 20	289,296.0	318,225.6	437,560.2	481,316.2	529,447.8	613,938.9	
21 - 30	310,464.0	341,510.4	469,576.8	516,534.5	568,187.9	658,861.3	
31 - 40	50,982.0	333,508.8	478,635.0	548,785.6	624,145.8	723,749.1	
41 - 50	0.0	0.0	0.0	0.0	619,866.5	689,787.2	
over 50	0.0	0.0	0.0	0.0	0.0	0.0	
Sub-total	650,742.0	993,244.8	1,385,772.0	1,546,636.3	2,341,648.1	2,686,336.5	
Commercial A							
11 - 20	56,760.0	62,436.0	85,849.5	94,434.5	103,877.9	120,455.1	
21 - 30	53,915.4	9,194.9	14,614.1	18,265.5	22,525.2	28,969.4	
31 - 40	0.0	0.0	0.0	0.0	0.0	0.0	
41 - 50	0.0	0.0	0.0	0.0	0.0	0.0	
over 50	0.0	0.0	0.0	0.0	0.0	0.0	
Sub-total	110,675.4	71,630.9	100,463.6	112,700.0	126,403.1	149,424.5	

Commercial B						
11 - 20	161,622.0	177,784.2	244,453.3	268,898.6	295,788.5	342,991.4
21 - 30	128,898.0	53,310.9	79,282.3	93,854.1	110,620.6	136,918.3
31 - 40	0.0	0.0	0.0	0.0	0.0	0.0
41 - 50	0.0	0.0	0.0	0.0	0.0	0.0
over 50	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	290,520.0	231,095.1	323,735.6	362,752.7	406,409.0	479,909.7
Commercial C						
11 - 20	54,814.9	170,573.8	240,004.7	270,077.6	303,831.8	360,219.7
21 - 30	0.0	0.0	0.0	0.0	0.0	0.0
31 - 40	0.0	0.0	0.0	0.0	0.0	0.0
41 - 50	0.0	0.0	0.0	0.0	0.0	0.0
over 50	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	54,814.9	170,573.8	240,004.7	270,077.6	303,831.8	360,219.7
Institutional/Govt						
11 - 20	181,548.0	183,363.5	231,496.4	233,811.4	236,149.5	251,430.3
21 - 30	194,832.0	196,780.3	248,435.2	250,919.5	253,428.7	269,827.6
31 - 40	71,485.0	216,160.2	272,902.3	275,631.3	278,387.6	296,401.6
41 - 50	0.0	182,648.4	79,329.0	275,631.3	278,387.6	296,401.6
over 50	0.0	0.0	0.0	93,035.4	292,185.3	550,291.7
Sub-total	447,865.0	778,952.4	832,162.8	1,129,028.8	1,338,538.7	1,664,352.8
Industrial						
11 - 20	0.0	0.0	0.0	0.0	0.0	0.0
21 - 30	0.0	0.0	0.0	0.0	0.0	0.0
31 - 40	0.0	0.0	0.0	0.0	0.0	0.0
over 40	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	0.0	0.0	0.0	0.0	0.0	0.0
Bulk/Wholesale						
11 - 20	4,428.0	4,428.0	5,535.0	5,535.0	5,535.0	5,834.8
21 - 30	4,752.0	4,752.0	5,940.0	5,940.0	5,940.0	6,261.8
31 - 40	5,220.0	5,220.0	6,525.0	6,525.0	6,525.0	6,878.4
over 40	5,220.0	5,220.0	6,525.0	6,525.0	6,525.0	6,878.4
Sub-total	19,620.0	19,620.0	24,525.0	24,525.0	24,525.0	25,853.4
<b>ANNUAL REVENUES (Total Billed, PhP)</b>						
<b>Minimum Charge (PhP)</b>						
Residential	4,706,352	4,921,287	6,477,627	6,886,697	7,227,352	7,909,223
Commercial	272,832	300,115	412,658	453,924	499,317	578,999
Commercial A	53,592	58,951	81,058	89,164	98,080	113,732
Commercial B	152,424	167,666	230,541	253,595	278,955	323,472
Commercial C	194,880	214,368	294,756	324,232	356,655	413,571
Institutional/Govt	171,216	172,928	218,322	220,505	222,710	237,121
Industrial	0	0	0	0	0	0
Bulk/Wholesale	4,176	4,176	5,220	5,220	5,220	5,503

Commodity Charges (PhP)							
Residential	2,756,135	3,328,330	5,000,745	6,011,846	7,079,122	8,654,218	
Commercial	650,742	993,245	1,385,772	1,546,636	2,341,648	2,686,336	
Commercial A	110,675	71,631	100,464	112,700	126,403	149,424	
Commercial B	290,520	231,095	323,736	362,753	406,409	479,910	
Commercial C	54,815	170,574	240,005	270,078	303,832	360,220	
Institutional/Gov't	447,865	778,952	832,163	1,129,029	1,338,539	1,664,353	
Industrial	0	0	0	0	0	0	
Bulk/Wholesale	19,620	19,620	24,525	24,525	24,525	25,853	
TOTAL	4,330,372	5,593,447	7,907,409	9,457,566	11,620,478	14,020,315	
TOTAL ANNUAL REVENUES PER CUSTOMER CATEGORY (PhP)							
Residential	7,462,487	8,249,617	11,478,372	12,898,542	14,306,473	16,563,441	
Commercial	923,574	1,293,360	1,798,430	2,000,561	2,840,965	3,265,336	
Commercial A	164,267	130,582	181,522	201,864	224,483	263,156	
Commercial B	442,944	398,762	554,277	616,348	685,364	803,381	
Commercial C	249,695	384,942	534,761	594,309	660,487	773,791	
Institutional/Gov't	619,081	951,881	1,050,485	1,349,534	1,561,249	1,901,474	
Industrial	0	0	0	0	0	0	
Bulk/Wholesale	23,796	23,796	29,745	29,745	29,745	31,356	
From Specific Fees and Charges		651,000	840,270	1,022,880	903,935	787,995	
Total Revenues (from Price Strategy)	9,885,844	12,083,939	16,467,861	18,713,783	21,212,701	24,389,931	
Collection Efficiency Ratio (CE Ratio)	95%	95%	95%	95%	95%	95%	
Adjusted (Collected)Total Revenues with the CE Ratio	9,391,552	11,479,742	15,644,468	17,778,094	20,152,066	23,170,434	
Compared to:							
Total Revenue Needs (Annex 7)	15,528,347	12,801,942	18,282,010	20,513,263	23,577,313	25,433,350	
Annual Cash Flow Surplus (Deficit)	-6,136,795	-1,322,200	-2,637,542	-2,735,169	-3,425,248	-2,262,916	
Cash from Prior Year	2,555,247	-3,581,548	-4,903,749	-7,541,290	-10,276,459	-13,701,707	
Accumulative Cash Flow Surplus(Deficit)	-3,581,548	-4,903,749	-7,541,290	-10,276,459	-13,701,707	-15,964,622	
Sewerage Calculation (%)	0%						
Percent Increase in Revenues from Specific Fees and Charges		5.67%	5.37%	5.75%	4.49%	3.40%	

## Annex 9 CASHFLOW

<b>WAO WATER DISTRICT</b>						
<b>CASH FLOW PROJECTIONS</b>						
In '000 Pesos (As of December 31, 2016)						
GENERAL DATA	BASED YEAR	PROJECTIONS				
		CY +1	CY +2	CY +3	CY +4	CY +5
	2016	2017	2018	2019	2020	2021
Year-End Connections	3,810	3,996	4,218	4,492	4,729	4,933
Mid-Year Connections	3,810	3,903	4,107	4,355	4,610	4,831
Market Growth/Year	0	186	222	273	238	204
Service Area Population	46,467	47,081	47,702	48,332	48,970	49,616
% Served Population	59%	58%	60%	63%	61%	63%
Ave. Cons./Conn./Mo. (cu.m.)	17	18	19	20	22	23
Billed Water ('000 cu.m.)	785	872	974	1,098	1,227	1,362
% Non-Revenue Water	28%	20%	20%	20%	20%	20%
Production ('000 cu.m.)	1,091	1,090	1,218	1,373	1,534	1,703
Effective Water Rate/Cu.m.	12.59	14	17	17	17	18
% Rate Increase	0%	0%	25%	0%	0%	5%
Collection Efficiency	95%	95%	95%	95%	95%	95%
	9,886	12,084	16,468	18,714	21,213	24,390
<b>CASH RECEIPTS</b>						
Current Water Sales	9,392	11,480	15,644	17,778	20,152	23,170
Collection of Prev. Years' Arrears	2,532	477	478	645	737	836
Other Receipts	3,755	1,128	1,319	1,668	1,641	1,624
Loan Proceeds	-	-	-	-	-	-
Septage Income	-	-	-	-	-	-
Tipping Fee	-	-	-	-	-	-
<b>TOTAL CASH RECEIPTS</b>	<b>15,678</b>	<b>13,085</b>	<b>17,441</b>	<b>20,091</b>	<b>22,530</b>	<b>25,630</b>
<b>CASH DISBURSEMENTS</b>						
Operation & Maintenance (O&M)						
Salaries	2,070	2,868	3,632	5,019	5,769	6,076
Power for Pumping	117	144	177	218	268	321
Fuel for Pumping						
Outsourcing (Water)	-	-	-	-	-	-
Maintenance Expense	3,031	3,186	3,580	3,100	3,000	2,900
Chemicals	220	304	420	581	804	965
Fixed Other O & M	1,949	3,054	3,500	4,375	5,102	5,242
Variable Other O & M	2,036	1,885	2,300	2,919	3,195	3,626
	<b>9,423</b>	<b>11,440</b>	<b>13,610</b>	<b>16,212</b>	<b>18,138</b>	<b>19,130</b>
<b>Debt Service</b>						
LWUA Loan	418	418	418	418	418	418
Loans Outside LWUA	780	668	636	604	571	274
<b>Total Debt Service</b>	<b>1,198</b>	<b>1,085</b>	<b>1,053</b>	<b>1,021</b>	<b>989</b>	<b>691</b>

<b>O &amp; M Expenses (STP):</b>						
Salaries	-	-	-	-	-	-
Power	-	-	-	-	-	-
Chemicals						
Desludging Cost	-	-	-	-	-	-
Maintenance Cost	-	-	-	-	-	-
Fuel Cost	-	-	-	-	-	-
Amortization						
<b>Total O &amp; M for (Septage)</b>	-	-	-	-	-	-
Capex	4,693	-	3,343	3,000	4,150	5,300
Capex (New SC)	0.00	0	-	-	-	-
Capital Expenditures STP	-	-	-	-	-	-
Reserves	-	-	-	-	-	-
Franchise Tax	278	276	275	280	300	312
<b>TOTAL CASH DISBURSEMENTS</b>	<b>15,592</b>	<b>12,802</b>	<b>18,282</b>	<b>20,513</b>	<b>23,577</b>	<b>25,433</b>
CASH INFLOW (DEFICIT)	86	283	(841)	(422)	(1,047)	196
ADD: BEG. CASH BALANCE	2,555	2,641	2,923	2,083	1,660	613
<b>ENDING CASH BALANCE</b>	<b>2,641</b>	<b>2,923</b>	<b>2,083</b>	<b>1,660</b>	<b>613</b>	<b>809</b>
<b>Reserves</b>	<b>188</b>	<b>230</b>	<b>313</b>	<b>356</b>	<b>403</b>	<b>463</b>
<b>CASH Net of Reserves</b>	<b>2,453</b>	<b>2,694</b>	<b>1,770</b>	<b>1,305</b>	<b>210</b>	<b>346</b>
<i>3 Months O &amp; M Ceiling (for checking)</i>	26,202	28,931	31,188	33,765	35,765	37,887
<i>Aggregate Reserves + Ending Cash</i>	9,678	23,556	17,658	20,657	46,179	69,783
<b>WATER RATES:</b>						
Minimum Charge (0-10 cu.m.)	116.00	116.00	145.00	145.00	145.00	152.85
11-20 cu.m. (P/cu.m.)	12.30	12.30	15.38	15.38	15.38	16.21
21-30 cu.m. (P/cu.m.)	13.20	13.20	16.50	16.50	16.50	17.39
31-40 UP cu.m. (P/cu.m.)	14.50	14.50	18.13	18.13	18.13	19.11
41-50 UP cu.m. (P/cu.m.)	14.50	14.50	18.13	18.13	18.13	19.11
51 UP cu.m. (P/cu.m.)	14.50	14.50	18.13	18.13	18.13	19.11

## FINANCIAL ANALYSIS (2016)

### Liquidity

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{4,157,709.56}{453,807.87} = 9.16$$

This means that the district has the ability to pay off its current liabilities 9x without having to sell off its long term or revenue generating assets.

$$\begin{aligned}\text{Quick Ratio} &= \frac{\text{Total Current Asset} - \text{Inventory} - \text{Prepaid Expenses}}{\text{Current Liabilities}} \\ &= \frac{4,157,709.56 - 694,856.86 - 0}{453,807.87} \\ &= \frac{3,462,852.70}{453,807.87} \\ &= 7.63\end{aligned}$$

The district is able to pay its obligations 7x without having to sell off any capital assets.

$$\text{Times Interest earned Ratio} = \frac{\text{Income before Interest and Taxes}}{\text{Interest Expense}} = \frac{3,520,294.40}{471,533.17} = 7.47$$

The district makes enough income for its total interest expense 7x over.

### Solvency

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Equity}} = \frac{5,515,922.70}{26,585,485.66} = 0.21$$

The district is financed 21% by the creditors and 79% by the government.

$$\text{Equity Ratio} = \frac{\text{Total Equity}}{\text{Total Assets}} = \frac{26,585,485.66}{32,101,408.36} = 0.83$$

The higher the equity ratio, the more favorable for the district.

It shows the potential shareholders that the district is worth investing since so many investors are willing to invest and shows potential creditors that the district is more sustainable and less risky to lend future loans.

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}} = \frac{5,515,922.70}{32,101,408.36} = 0.17$$

Lower ratios are more favorable than higher ratios.

A lower ratio implies a more stable business with the potential of longevity because a district with lower ratio has lower overall debt.

### **Profitability**

$$\text{Return on Equity Ratio} = \frac{\text{Net Income}}{\text{Shareholder's Equity}} = \frac{4,269,951.03}{26,585,485.66} = 0.16$$

This shows how efficient the district is in using government funds to generate profit.

## Part VIII- WWD FUTURE PLANS

In addition to the current development of WWD using its ICG, the management is also looking into the expansion and rehabilitation of Wao Water System.

### 1. Proposed Expansion and Rehabilitation Projects:

- a. **PHASE I Additional Transmission Line**
- b. **PHASE II Additional Transmission Line from JICA to Cebuano Group**

## MAP



At Phase 1, the additional 6"Ø Transmission line will be coming from Bungol Spring to JICA Reservoir with a total distance of 4.8Km. This project is expected to be completed within (5) months and (1) week.

On the other hand, the additional 4"Ø Transmission line from JICA to Cebuano Group at Phase 2 will follow a trail coming from JICA Reservoir to Palmes Farm to Cebuano Group with a total distance of 6.54Km. This project is expected to be completed within the same timeframe as Phase 1.



PROGRAM OF WORKS				
WATER SYSTEM 1 ADDITIONAL TRANSMISSION LINE				
(PHASE 1)				
2019				
<b>I. ENGINEERING BASIC COST ITEMS:</b>				
<b>I. TRANSMISSION LINE</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
<b>a. Bungol to Jica</b>				
1.) 160mm PVC PIPE Series 8 Class 150 W/ O-ring	800.00	length	5,472.50	4,378,000.00
2.) Steel Bridge fo Pipe River Crossing	2	lot	117,500.00	235,000.00
<b>b. Equipment Purchase</b>				
3.) Equipments	1	set	800,000.00	600,000.00
4.) Water Meter Assembly Replacement	250	pcs	2,000.00	500,000.00
Sub-Total				5,713,000.00
6.)Fittings & Appurtenances 15%				856,950.00
Total I				6,569,950.00
<b>II. LABOR AND CARPENTRY WORKS:</b>				
7. Excavation & Restoration Cost	4,800.00	mtrs	80.00	384,000.00
Total Cost II				384,000.00
<b>TOTAL PROJECT COST</b>				<b>6,953,950.00</b>
<b>PROJECT SUPERVISION COST 3%</b>				<b>182,910.00</b>
<b>DETAILED ENGINEERING DESIGN COST 6%</b>				<b>304,850.00</b>
<b>GRAND TOTAL</b>				<b>7,441,710.00</b>

ADDITIONAL TRANSMISSION LINE FROM JICA TO CEBUANO GROUP				
(PHASE 2)				
2019				
<b>I. ENGINEERING BASIC COST ITEMS:</b>				
<b>1. JICA TO PALMES TO CEBUANO GROUP</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
a.) 110mm PVC PIPE Series 8 Class 150 W/ O-ring	575	Length	2,575.00	1,480,625.00
b.) 90mm PVC PIPE Series 8 Class 150 W/ O-ring	515	Length	1,705.00	878,075.00
<b>2.Rehabilitation and Re-alignment</b>				
a.) Transmission line and Mainline	1	lot	3,242,084.00	3,242,084.00
Sub-Total				5,600,784.00
3. Water Meter Assembly Replacement	250	pcs	2,000.00	500,000.00
Sub-Total				6,100,784.00
4.)Fittings & Appurtenances 15%				915,117.60
Total I				7,015,901.60
<b>II. LABOR AND CARPENTRY WORKS:</b>				
5. Excavation and Backfill	6540	mtrs	80.00	523,200.00
Total Cost II				523,200.00
<b>TOTAL PROJECT COST</b>				<b>7,539,101.60</b>
<b>PROJECT SUPERVISION COST 3% (MC+LC)</b>				<b>216,168.54</b>
<b>DETAILED ENGINEERING DESIGN COST 5% (MC+LC)</b>				<b>360,280.90</b>
<b>GRAND TOTAL</b>				<b>8,115,551.04</b>

c. **PHASE III Spring Source Development and Proposed Water System 3**

At Phase 3, the water sources such as the Bungol Spring, Villalon Spring and Bagaobao Spring will be developed. Development would include fencing, construction and reconstruction of the in-existing and existing catchment tanks, sump tanks and reservoir. Main pipe laying from Villalon Spring to Brgy. Katutungan with a distance of 2.52 Km. will also take place.

SPRING SOURCE DEVELOPMENT				
(PHASE 3)				
2019				
<b>I. ENGINEERING BASIC COST ITEMS:</b>				
<b>1. SPRING SOURCE DEVELOPMENT</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
a.) Bungol Source Development	1	Lot	359,950.00	359,950.00
b.) Villalon Source Development	1	Lot	150,000.00	150,000.00
c.) Bagaobao Source Development	1	Lot	100,000.00	100,000.00
<b>2. Villalon to Katutungan mainline</b>				
d.) 160mm PVC PIPE Series 8 Class 150 W/ O-ring	420	length	5,472.50	2,298,450.00
e.) 110mm PVC PIPE Series 8 Class 150 W/ O-ring	196	length	2,575.00	504,700.00
f.) 90mm PVC PIPE Series 8 Class 150 W/ O-ring	1748	length	1,705.00	2,980,340.00
g.) 63mm PVC PIPE Series 8 Class 150 W/ O-ring	650	length	835.00	542,750.00
<b>3. Concrete Reservoir</b>	<b>50</b>	<b>cu</b>	<b>25,000.00</b>	<b>1,250,000.00</b>
<b>4. Water Meter Assembly Replacement</b>	<b>250</b>	<b>pcs</b>	<b>2,000.00</b>	<b>500,000.00</b>
Sub-Total				8,686,190.00
<b>5.) Fittings &amp; Appurtenances 15%</b>				1,302,928.50
<b>Total Cost I</b>				<b>9,989,118.50</b>
<b>II. LABOR AND CARPENTRY WORKS:</b>				
<b>6.) Total Labor Cost</b>	<b>18,084.00</b>	<b>mtrs</b>	<b>90.00</b>	<b>1,627,560.00</b>
Total Cost II				1,627,560.00
<b>TOTAL PROJECT COST</b>				<b>11,616,678.50</b>
<b>PROJECT SUPERVISION COST 3%</b>				<b>290,130.00</b>
<b>DETAILED ENGINEERING DESIGN COST 6%</b>				<b>483,550.00</b>
<b>GRAND TOTAL</b>				<b>12,390,358.50</b>

d. **PHASE IV Propose Water System 4 {kili kili water system}**

PROPOSED WATER SYSTEM 4				
(PHASE 4)				
2019				
<b>I. ENGINEERING BASIC COST ITEMS:</b>				
<b>I. TRANSMISSION LINE</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
<b>1. Sumogot to Kili-kili</b>				
a.) 160mm PVC PIPE Series 8 Class 150 W/ O-ring	1050	length	5,472.50	5,746,125.00
b.) 110mm PVC PIPE Series 8 Class 150 W/ O-ring	150	length	2,575.00	386,250.00
c.) 90mm PVC PIPE Series 8 Class 150 W/ O-ring	164	length	1,705.00	279,620.00
d.) 63mm PVC PIPE Series 8 Class 150 W/ O-ring	800	length	835.00	668,000.00
Sub-Total				7,079,995.00
<b>3. Sumogot Source Development</b>	<b>1</b>	<b>Lot</b>	<b>150,000.00</b>	<b>150,000.00</b>
<b>4. Concrete Reservoir</b>	<b>50</b>	<b>cu</b>	<b>25,000.00</b>	<b>1,250,000.00</b>
<b>5. Water Meter Assembly Replacement</b>	<b>250</b>	<b>pcs</b>	<b>2,000.00</b>	<b>500,000.00</b>
Sub-Total				1,900,000.00
<b>6.) Fittings &amp; Appurtenances 15%</b>				2,961,999.25
<b>II. LABOR AND CARPENTRY WORKS:</b>				
<b>7. Excavation &amp; Restoration Cost</b>	<b>12,984.00</b>	<b>mtrs</b>	<b>90.00</b>	<b>1,168,560.00</b>
Total Cost II				1,168,560.00
<b>TOTAL PROJECT COST</b>				<b>13,110,554.25</b>
<b>PROJECT SUPERVISION COST 3%</b>				<b>393,316.63</b>
<b>DETAILED ENGINEERING DESIGN COST 5%</b>				<b>655,527.71</b>
<b>GRAND TOTAL</b>				<b>14,159,398.59</b>

At Phase 4, Sumugot Spring will be developed from fencing of the spring to the construction of Catchment, Sump Tank and Reservoir. A 6" Ø Transmission line from Sumugot to Kilikili with a total distance of 6.3 Km. will also be installed.

## PROJECTS TIMELINE

Activities	2019											
	1			2			3			4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Phase I</b>												
<b>Water System 1 Additional 6" Transmission Line</b>												
<i>Right of Way</i>												
<i>Sticking</i>												
<i>Pipe and materials' delivery to site area</i>												
<i>Steel bridge construction</i>												
<i>Excavation and pipe laying</i>												
<i>Back filling</i>												
<i>Flushing and turn-over of the project</i>												
<b>Phase II</b>												
<b>Additional Transmission Line from JICA to Cebuano Group</b>												
<i>Right of Way</i>												
<i>Sticking</i>												
<i>Pipe and materials' delivery to site area</i>												
<i>Excavation and pipe laying</i>												
<i>Back filling</i>												
<i>Flushing and turn-over of the project</i>												
<b>Phase III</b>												
<b>Spring Source Development and Proposed Water System 3</b>												
<i>Right of Way</i>												
<i>Sticking</i>												
<i>Materials' delivery to site area</i>												
<i>Reservoir Construction</i>												
<i>Source Development</i>												
<i>Excavation, Piping &amp; Pipe Laying</i>												
<i>Back filling</i>												
<i>Flushing and turn-over of the project</i>												
<b>Phase IV</b>												
<b>Proposed Water System 4</b>												
<i>Right of Way</i>												
<i>Sticking</i>												
<i>Materials' delivery to site area</i>												
<i>Source Development</i>												
<i>Excavation, Piping &amp; Pipe Laying</i>												
<i>Back filling</i>												
<i>Flushing and turn-over of the project</i>												

In the past, Wao Water District has been making service contracts with various service contractors, namely: Eric Ligan, Benedick and Joel Hanoyan, Noel Polacas, Celso Erwela, Jesam Pacuyao, and Melvin Pesado. These people are the potential contractors for the upcoming projects.

Upon completion of the projects, is it estimated that 17% of the unserved population from Brgy. Amoyong, Katutungan, Cebuano Group, Kilikili East and West, and Milaya or a total of 564 concessionaires will avail of the water services by 2020 (this figure is on top of the projected concessionaires on Annex 3).

These plans would be possible if the district can avail of a loan from LWUA for a total of **Php42,107,018.13**.

Supposing that this loan will be payable after (3) years from receipt of the proceeds for the next 25 years with an interest rate of 4% p.a., the district will be paying a monthly amortization of Php222,256.35 or an annual amortization of Php2,667,076.20.

#### AMORTIZATION SCHEDULE

Year	Principal	Interest	Total Paid	Balance
2021	81,899.62	140,356.73	222,256.35	42,025,118.51
2022	1,004,351.82	1,662,724.38	2,667,076.20	41,020,766.69
2023	1,045,270.67	1,621,805.53	2,667,076.20	39,975,496.02
2024	1,087,856.60	1,579,219.60	2,667,076.20	38,887,639.42
2025	1,132,177.55	1,534,898.65	2,667,076.20	37,755,461.87
2026	1,178,304.23	1,488,771.97	2,667,076.20	36,577,157.64
2027	1,226,310.13	1,440,766.07	2,667,076.20	35,350,847.51
2028	1,276,271.92	1,390,804.28	2,667,076.20	34,074,575.59
2029	1,328,269.20	1,338,807.00	2,667,076.20	32,746,306.39
2030	1,382,384.95	1,284,691.25	2,667,076.20	31,363,921.44
2031	1,438,705.44	1,228,370.76	2,667,076.20	29,925,216.00
2032	1,497,320.50	1,169,755.70	2,667,076.20	28,427,895.50
2033	1,558,323.68	1,108,752.52	2,667,076.20	26,869,571.82
2034	1,621,812.18	1,045,264.02	2,667,076.20	25,247,759.64
2035	1,687,887.31	979,188.89	2,667,076.20	23,559,872.33
2036	1,756,654.44	910,421.76	2,667,076.20	21,803,217.89
2037	1,828,223.27	838,852.93	2,667,076.20	19,974,994.62
2038	1,902,707.88	764,368.32	2,667,076.20	18,072,286.74
2039	1,980,227.13	686,849.07	2,667,076.20	16,092,059.61
2040	2,060,904.64	606,171.56	2,667,076.20	14,031,154.97
2041	2,144,869.09	522,207.11	2,667,076.20	11,886,285.88
2042	2,232,254.36	434,821.84	2,667,076.20	9,654,031.52
2043	2,323,199.84	343,876.36	2,667,076.20	7,330,831.68
2044	2,417,850.61	249,225.59	2,667,076.20	4,912,981.07
2045	2,516,357.55	150,718.65	2,667,076.20	2,396,623.52
2046	2,396,623.52	48,198.34	2,444,821.86	-
<b>Totals</b>	<b>42,107,018.13</b>	<b>24,569,888.88</b>	<b>66,676,907.01</b>	

Based on the projected Cashflow by 2021, the district has a total cash ending (net of reserves) of Php345,569.25 which means that the district is capable of paying the 1<sup>st</sup> amortization of the loan for December 2021. On top of that, if the loan will be granted, the budget for

transmission line starting on 2018-2021 amounting to Php1,500,000.00 per year for a total of Php6,000,000.00 will be saved for future payment of the interest on 2022-2024. Plus, since the ROI for the proposed expansion and rehabilitation project already started on 2020, the district can surely save up for the monthly amortization of the loan for 2025 and so on.

## 2. Proposed Wao Water District Resort



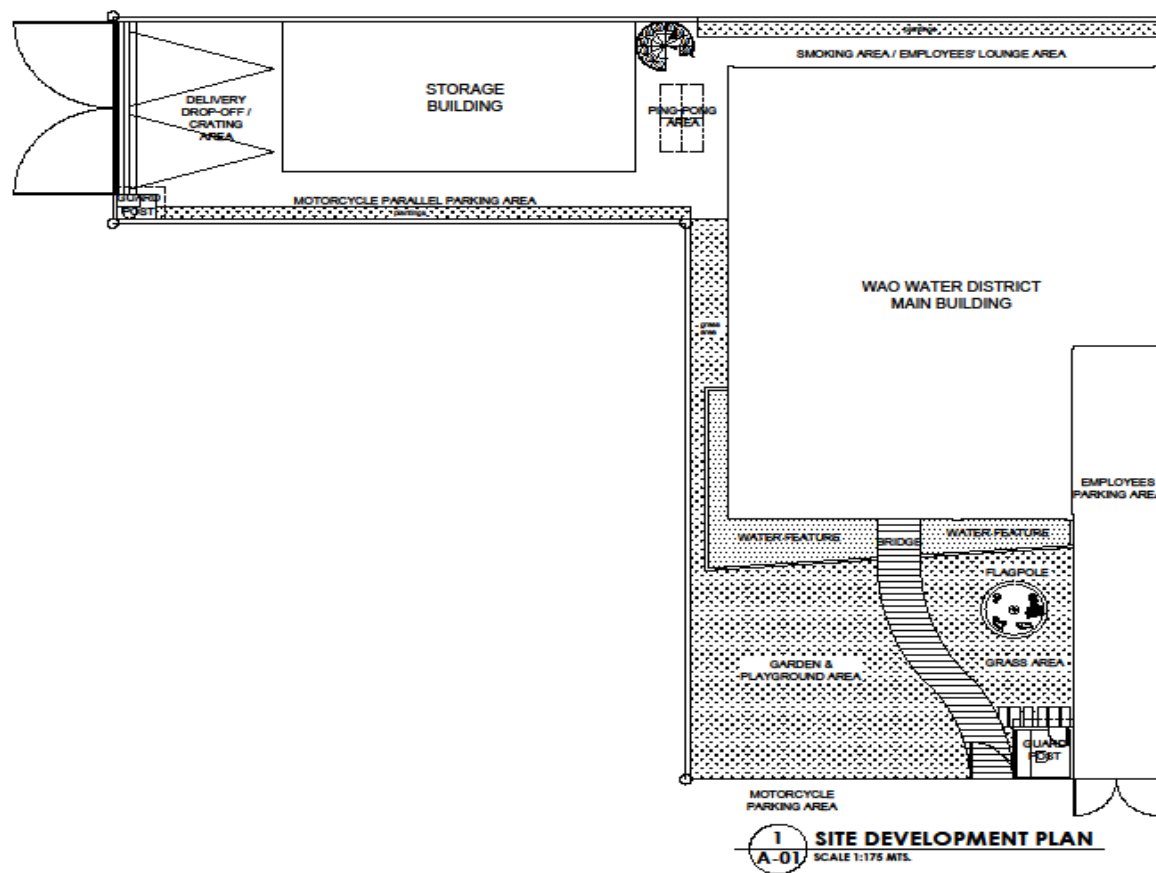
The WWD has budgeted Php500,000.00 on 2018 for the fencing of the 2 hectares land owned by the district located at Brgy. Manila Group which will be utilized for the proposed Wao Water District Resort.

Another Php500,000.00 each year from 2020-2021 was allocated for the development of this project.

The backhoe which was purchased as early as 2019 could be used in this project and other incoming projects.

## 3. Proposed Wao Water District Renovation and Extension of Office Building

The district has allocated Php500,000.00 per year from 2020-2021 for the development of this project.



**PROJECT TITLE:**  
**PROPOSED WAO WATER DISTRICT  
RENOVATION AND EXTENSION**  
**LOCATION: WAO LANAO DEL SUR**  
**- SITE DEVELOPMENT PLAN**  
**- PERSPECTIVES**

**REPUBLIC ACT 9266, SECTION 33**

Drawings and Specifications and other contract documents duly signed, stamped or sealed, as Instruments of service, are the intellectual property and documents of the Architect, whether the object for which they are made is executed or not. It shall be unlawful for any person to duplicate or to make copies of said documents for use in the repetition of and for other projects or buildings, whether executed partly or in whole, without the written consent of Architect or Author of said documents.

**ACCEPTED BY:**

**SCALE:**

**AS INDICATED**

**DATE STARTED:**

**NOV. 09, 2016**

**DATE ISSUED:**

**JUL. 20, 2016**

**DRAWN BY:**

**RSA**

**CHECKED BY:**

**AR. RACHEL S. AKUT**

**DRAWING NO.**

**A.01**

**PROJECT NO.**

**01-2016**

**REV.**

## **Part IX- ACKNOWLEDGMENT**

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This 5 years Business Plan is made possible through the help of everyone especially the Board of Directors, the WWD personnel such as Ms. Floricel Puno, Ms. Mardy Grace Lanado, Ms. Lenilia Lanado, Mr. Julius Ceasar Molina, Ms. Noveline Marie Hibaya, Mr. Donn Glenard Pablico, Mr. Johannes Setier, Ms. Anie Rose Fabrigar and the last but not the least, GM Engr. Tomas C. Carumba Jr. for their undying support and enthusiasm in providing ideas.

The district would also like to thank GM Roger Pangan and MFWD staff for all of their inputs and ideas during the creation of this Business Plan;

To all the maintenance team who are responsible for securing the safety of all the concessionaires of WWD through clean and potable water and ensuring that the water services is enjoyed 24/7.

A heartfelt gratitude is also extended to the ever supportive (LWUA) Local Water Utilities Administration for always extending help in times of difficulties and questions, and extending guidance in the development of this 5 years business Plan.

And above all, the Wao Water District would like to thank God for His unconditional guidance and wisdom to make this 5 years Business Plan successful and operational.

To God be all the glory.

## Part X- ABBREVIATION

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CCC	-	Conditional Certificate of Conformance
CMU	-	Central Mindanao University
COS	-	Contract of Service
CWP	-	Conditional Water Permit
ICG	-	Internal Cash Generation
JICA	-	Japan International Cooperation Agency
LWUA	-	Local Water Utilities Administration
NRW	-	Non-Revenue Water
PD	-	Presidential Decree
pH	-	Potential of Hydrogen
PhilGEPS	-	Philippine Government Electronic Procurement System
PNSDW	-	Philippine National Standards for Drinking Water
PO	-	Purchase Order
PR	-	Purchase Request
RFQ	-	Request for Quotation
SOP-	-	Standard Operating Procedure
SRS	-	Store Requisition Slip
WDC	-	Wao Development Corporation
WHO	-	World Health Organization
WSP	-	Water Safety Plan
WWD	-	Wao Water District



## Part XI- DEFINITION OF TERMS

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Arsenic	-a trivalent and pentavalent metalloid poisonous element that is commonly metallic steel gray, crystalline, and brittle and is used especially in wood preservatives, alloys and semi-conductors.
Booming	-having a period of great prosperity or rapid economic growth.
Cadmium	-a toxic bluish-white malleable ductile divalent metallic element used especially in batteries, pigments, and protective plating.
Centigrade	-another term for <u>Celsius</u> .
Chloride	-a compound of chlorine with another element or group; especially: a salt or ester of hydrochloric acid.
Chlorination	-the process of adding chlorine (Cl. 2) or hypochlorite to water.
Contaminant	-a polluting or poisonous substance that makes something impure.
Flush	-cleanse (something, especially a toilet) by causing large quantities of water to pass through it.
Excavate	-make (a hole or channel) by digging.
Hazard	-a condition, event or circumstance that could lead to or contribute to an unplanned or undesirable event.
Intrusion	-the action of intruding.
Iron	-a silver-white malleable ductile magnetic heavy metallic element that readily rusts in moist air, occurs native in meteorites and combined in most igneous rocks, is the most used of metals, and is vital to biological processes.
Lead	-a flexible or solid insulated conductor connected to or leading out from an electrical device (as an electroencephalograph).
Manganese	-a grayish-white usually hard and brittle metallic element that resembles iron but is not magnetic and is used especially in alloys, batteries and plant fertilizers.
Nitrate	-a salt or ester of nitric acid.
Pathogen	-a bacterium, virus, or other microorganism that can cause disease.
Per Capita	-for each person; in relation to people taken individually.
pH	-a measure of acidity or alkalinity of water soluble substances.
Reservoir	-a large natural or artificial lake used as a source of water supply.
Risk	-a situation involving exposure to danger.
Sulfate	-a salt or ester of sulfuric acid.
Turbidity	-the cloudiness or haziness of a fluid caused by large numbers of individual particles that are generally visible to the naked eye, similar to smoke in the air.

## Part XII- APPENDICES

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- A. Local Water Utilities Administration Circular No. 006-17 dated April 11, 2017
- B. Local Water Utilities Administration Circular No. 006-14 dated August 15, 2014
- C. Wao Water District Resolution No. 30, Series of 2017
- D. Business Planning Memoir



### LOCAL WATER UTILITIES ADMINISTRATION

P.O. BOX 34, U.P. Post Office, Kalipunan Avenue, Balara, Quezon City  
Tel No.: 920-5581 to 99; 920-56-01 Fax No: (632) 922-34-34  
Administrator's Direct Line: (02) 929-61-07  
LWUA Website: www.lwua.gov.ph

April 11, 2017

**MEMORANDUM CIRCULAR NO. 006-17**

**TO : ALL WATER DISTRICTS**

**SUBJECT : 5-YEAR BUSINESS PLAN**

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Pursuant to LWUA's mandate for the promotion, development and financing of local water utilities, all water districts are hereby directed to submit their respective updated 5-year business plans by 31 May 2017.

The said plans shall serve as basis for assessment and prioritization of LWUA's investment and development programs for the sector as well as monitoring of water district performance.

For compliance,

**JECI A. LAPUS**  
Acting Administrator



**LOCAL WATER UTILITIES ADMINISTRATION**  
P.O. BOX 34, U.P. Post Office, Katipunan Avenue, Balara, Quezon City  
Tel No.: 920-5581 to 99; 920-56-01 Fax No: (632) 922-34-34  
Administrator's Direct Line: (02) 929-61-07  
LWUA Website: [www.lwua.gov.ph](http://www.lwua.gov.ph)

15 August 2014

MEMORANDUM CIRCULAR NO. 006. 14

TO : All Water Districts

FROM : The Administrator, Local Water Utilities Administration

SUBJECT : GUIDELINES ON THE EVALUATION OF WD  
RECATEGORYIZATION

Consistent with the Revised Local Water District Manual on Categorization, Re-Categorization and Other Related Matters (LWD-MaCRO), the evaluation and approval of all requests of LWDs for upward categorization shall be subject to the following:

I. Basic Requirements

1. Meeting the required number of points for the category
2. Must be current or up-to-date in servicing its debt service obligations
3. Upgrading will only be allowed once a year

II. Prognosis of Projected Operation for the next three years following the request for recategoryization

Indicators	Benchmarks
1. Operating Ratio (O & M plus Depreciation over Operating Revenues)	- Not More Than 0.75
2. Current Ratio (Current Asset over Current Liabilities)	- Not Less Than 1.5
3. Debt Service Coverage (Operating Income over Debt Service)	- Not Less Than 2
4. Reserve Fund in JSA (Reserve over Gross Water Sales)	- Not Less Than 3%
5. Average Cash Position (Free Cash Balance over Ave. O & M per month)	- Not Less Than 2 mcs.

Indicators	Benchmarks
6. Non-Revenue Water % (Total Production less Billed Water over Total Production)	- Not More Than 20%
7. Staff Productivity Index (No. of Employees over No. of Service Connections)	- Not Less Than 1:120
8. Collection Efficiency (Collections for Current Year over Total Billings)	- Not Less Than 90%

### III. List of Requirements

1. Board Resolution requesting for re-categorization.
2. Year-End Financial Statements and MDS for the past 2 years immediately preceding the request for re-categorization.
3. Photocopy of the LWUA-WD Joint Savings Account.
4. Projected Financial and Operating Condition for the next 3 years immediately following the request for re-categorization.

For your information and guidance.



ANDRES F. IBARRA  
Administrator





**EXCERPTS FROM THE MINUTES OF THE REGULAR BOARD MEETING DATED  
JULY 18, 2017 HELD AT WAO WATER DISTRICT OFFICE.**

**Present:**

- |                             |   |                        |
|-----------------------------|---|------------------------|
| 1. ANGELITA L. YUTIG        | - | Chairperson            |
| 2. PABLO P. PASCO, JR.      | - | Vice-Chairperson       |
| 3. JOSEPHINE B. ATA         | - | Secretary              |
| 4. MARCELINA S. BALISTA     | - | Treasurer              |
| 5. ROGELIO R. MUSICO        | - | Auditor                |
| 6. NOVELINE MARIE S. HIBAYA | - | Secretary to the Board |

**Resolution No. 30  
Series of 2017**

**RESOLUTION ADOPTING THE MEMORANDUM CIRCULAR NO. 006-17 OF LOCAL WATER  
UTILITIES ADMINISTRATION (LWUA) IN MAKING A 5-YEAR BUSINESS PLAN**

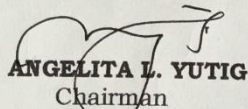
**Whereas**, pursuant to LWUA's mandate for the promotion, development and financing of local water utilities, all water districts are hereby directed to submit their respective updated 5-year business plan;

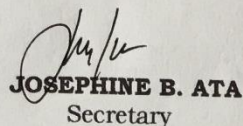
**Whereas**, the said plan shall serve as basis for assessment and prioritization of LWUA's investment and development programs for the sector as well as monitoring of water district performance;

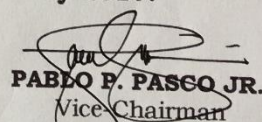
**Whereas**, the Wao Water District plans to expand to those barangays not covered by the district's services and also to rehabilitate its existing water system, the district sees the need to make and submit its own 5-year business plan so that LWUA could support WWD in its future projects;

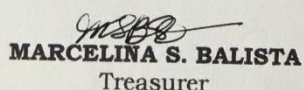
**Wherefore**, after thorough deliberation on the matter and by motion of Director Pablo P. Pasco, Jr. duly seconded by Director Rogelio R. Musico it was approved as it is hereby approved to pass a resolution adopting the memorandum circular no. 006-17 of Local Water Utilities Administration (LWUA) in making a 5-year business plan.

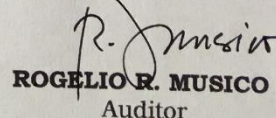
**Unanimously approved this 18<sup>th</sup> day of July 2017.**

  
**ANGELITA L. YUTIG**  
Chairman

  
**JOSEPHINE B. ATA**  
Secretary

  
**PABLO P. PASCO JR.**  
Vice Chairman

  
**MARCELINA S. BALISTA**  
Treasurer

  
**ROGELIO R. MUSICO**  
Auditor

## Business Planning

