

# BAYAWAN OPERATIONS MANUAL WATER DISTRICT 2017



*safe water for all...*

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## **L INTRODUCTION**

Safe and sufficient water is essential to life. Bayawan Water District is obligated to provide safe and potable drinking water and essential services to its concessionaires, likewise implement a water conservation program to commit its goal which is to provide 24-hour water supply with consideration to sustained neighborhood faucets, increase hygiene awareness and improved health situation of the target population of Bayawan City. It is really important that a water utility observed the fundamentals of utility operation and also includes utility management in assessing the efficiency of how water is delivered to the concessionaire's household.

Government water utilities were mandated to make this operation manual to maintain the transparency to all government agencies. Furthermore, this manual provides with information regarding the operation of the water supply of Bayawan Water District. This manual will provide opportunities to the agency to create way for informative and collaborative foundation to the concessionaires. This will also contribute for improving the transparency and accountability of the district.

In this case, having this manual is a great deal of knowing Bayawan Water District as a water utility agency that delivers a clean drinking water and also as an essential public servant.

## 1.1 General Manager's Message

There shall be good quality water available - 24 hours a day for every Bayawanon! This is our long standing commitment.

The management of BAWAD is geared towards meeting the ever changing demand for water with the highest quality possible. As we all know, Bayawan is rich in spring water or surface water which is prone to contamination. It is this kind of water supply that BAWAD is challenged to cleanse and deliver to every household tap at the lowest possible cost.

Today, we are very proud to inform you, our dear consumers that we have the water treatment plant to address these problems. With the full support of the City Government through the efforts and commitment of the late Honorable German P. Saraña, Jr. we are on the right track towards achieving our goal of producing the highest quality water for all Bayawanons.

The dynamic leadership of our Board of Directors headed by Chairman Eddie P. Tan is an inspiration for all the men and women of BAWAD for a strong, honest and dedicated quality service to its thousands of consumers.

This handbook is our way of reaching out to you and letting you be aware what BAWAD is doing for you.

Thank you for our support to your local Dater District.

God bless!



  
GM ALMA L. ABRASALDO

## **II. DEFINITION OF TERMS AND ACRONYMS**

<b>Agency</b>	- a business or organization established to provide a particular service, typically one that involves organizing transactions between two other parties.
<b>Concessionaire</b>	- is a person who holds a privilege given by the government.
<b>Disconnection</b>	- is a procedure of cutting the service connection that the district will do when a concessionaire fails to pay 3 consecutive monthly water bills.
<b>Essential</b>	- absolutely necessary; extremely important
<b>Level 2</b>	- piped water with a communal water point serving an average of four to six (4 to 6) households within a 25-meter distance.
<b>Level 3</b>	- piped water supply with a private water point based on a daily water demand of more than 100 liters per person.
<b>Lineal meters</b>	- lineal meter is a term used in describing the nominal length of an item.
<b>Partnership</b>	-an arrangement where parties, known as partners, agree to cooperate to advance their mutual interests.
<b>Potable</b>	- is something that is safe to drink and food preparation.
<b>Siphon</b>	- a tube used to convey liquid upwards from a reservoir and then down to a lower level of its accord. Once the liquid has been forced into the tube, typically by suction or immersion, flow continues unaided.
<b>Transparency</b>	- a set of policies that allow citizens to access information held by authorities.
<b>Water bill</b>	- is a statement or an invoice of a water consumption by a water concessionaire.
<b>Water Utility</b>	- a government agency or a private company that produced or served potable drinking water to the public..

## DEFINITION OF TERMS AND ACRONYMS

<b>BAWAD</b>	- Bayawan Water District
<b>DANIDA</b>	- Danish International Development Assistance
<b>GAD</b>	- Gender and Development
<b>HRMO</b>	- Human Resource Management Officer
<b>LGU</b>	- Local Government Unit
<b>LWD</b>	- Local Water District
<b>LWUA</b>	- Local Water Utilities Administration
<b>MOA</b>	- Memorandum of Agreement
<b>NAWASA</b>	- National Water System Association
<b>PMT</b>	- Performance Management Team
<b>SB</b>	- Sangguniang Bayan
<b>SPMS</b>	- Strategic Performance Management System
<b>UPVC</b>	- Unplasticized Polyvinyl Chloride
<b>UFW</b>	-Unaccounted for water

### III. GENERAL INFORMATION ABOUT BAYAWAN WATER DISTRICT AND THE SELECTED AREA OF OPERATION

#### 3.1 The BAWAD Story

Bayawan Water District, a very small water district with its humble beginnings, rising from a defunct NAWASA turning into a Local Water District (LWD) by virtue of Presidential Decree no. 198 otherwise known as the Local Water Utilities Act of 1973. It was born into a water district under SB Resolution No. 79, dated May 26, 1982, by then Honorable Mayor Felix Gaudiel, Jr.

#### 3.2 National Water System Association (NAWASA)

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 cubic meters Auxiliary Tank at the Manampa Watershed.

In 1956, additional transmission of 636 lineal meters 6" Ø C.I. 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.; 486.20 meters 2" Ø G.I.; and 1,292.50 meters 1 - ½" Ø at the distribution area.

The water system under the NAWASA had encountered problems some of which are 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.

In 1982, 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 Felix Gaudiel, Jr.

#### 3.3 Creation of BAWAD

The Bayawan Water District (BAWAD) was formed in May 1982 by virtue of Sangguniang Bayan; Resolution No. 79 dated May 26, 1982, with the following members:

Hon. Felix Gaudiel, Jr.	-	Municipal Mayor, Presiding
Hon. Raul P. Martinez	-	Municipal Vice Mayor
Hon. Jovencio Teves	-	Sangguniang Bayan - Member
Hon. Fernando Galsim	-	Sangguniang Bayan - Member
Hon. Atilano Cabangal	-	Sangguniang Bayan - Member

Hon. Rosario T. Diao	-	Sangguniang Bayan - Member
Hon. Rolando V. Gamon	-	Sangguniang Bayan - Member
Hon. Pacifico S. Quindo	-	Sangguniang Bayan - Member
Hon. Cresenciano L. Jordan	-	Sangguniang Bayan - Member
Hon. Rolando O. Gaga-a	-	Sangguniang Bayan - Member
Hon. Lobella P. Tubil	-	Sangguniang Bayan - Member
Hon. Saturnino Arcon	-	Sangguniang Bayan - Member

The SB approved the organization of BAWAD and duly appointed the following Board of Directors with initial terms of office:

OFFICER	POSITION	REPRESENTATIVE	TERMS OF OFFICE
1. Oscar T. Tijng	Chairman	Professional Sector	1982-1984
2. Manuel Duetao	Vice Chairman	Civic	1982-1982
3. Eligio Orbeta	Secretary	Business	1982-1986
4. Rhodora Gargantiel	Treasurer	Women	1982-1982
5. Leif Maypa	Director	Industrial	1982-1984

### **BAWAD then acquired the ownership of the NAWASA.**

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.

In 1986, BAWAD was granted with a P1.2 million mini-loan for construction of new distribution mains, pipe bridge crossing and re-alignment of the 100 mm portion of existing transmission mains.

### **3.4 BAWAD and the Local Government of Bayawan-A Triumphant Partnership**

BAWAD has grown slowly, arduously at a snail's pace with so much operational problems, from the not so good water quality, muddy during heavy rains to a very low pressure in the service area.

It was a dawn of a new day and better things loom in the horizon when it was included in the Local Water Utilities Administration (LWUA) financed Danish International Development Assistance (DANIDA) Water Supply Project for the Negros Island. But it needs cash counterpart from the government. The Local Government of Bayawan headed by the Honorable Mayor Ernesto T. Tijng and the able leader of the Sangguniang Bayan, the late Honorable Vice mayor then –German P. Saraña, Jr. accepted the proposed 32 million project and they willingly put-up the Php 3.0 Million cash equity for a Comprehensive Improvement Project (CIP). The Conventional Fil-



tration Plant, two (2) pumping stations, 12.0 kilometers 8 "and 6" UPVC transmission pipes and 17.0 kilometers 2" UPVC distribution network to be interconnected to the old existing lines.

The total project cost was Php 38,158,493.00 composed of the following:

Support to health	8,226,121.00
Level 2 neighborhood faucet	1,474,803.00
Information and communication	1,043,286.00
Water Quality Testing equipment	185,716.00
Engineering cost	2, 5550,862.00
Comprehensive Improvement program	24,677,705.00

Out of the project cost, only Php 17.0 Million pesos was loan and the rest was grant.

The project was completed and it was finally turn-over to BAWAD in December 31, 2001.

The new management hand in hand with the ever supportive Board of Directors operated the system. Unaccounted for water (UFW) previously pegged at 55% was brought down to 13.46% and collection efficiency increased to a staggering 93% by year end 2005.

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 Php 17.0 Million grant to BAWAD in year 2004, to pay its full debt service to LWUA.

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

In March 8, 2007, BAWAD and LGU- Bayawan City had signed another Memorandum of Agreement (MOA), granting BAWAD the Php 12.5 Million loan to finance its Water Quality Improvement Project.

The loan was an interest free financial assistance to BAWAD, to be paid back to the LGU in 6 years until 2014.

Total project cost was Php 12,619,852.75 composed of the following:

1. Construction of 6" diameter Isolation line from

Cambulo pumping Station to Muyao	2,166,113.87
2. Pipelaying of 3" diameter UPVC mainline along the diversion road	728,923.96
3. Procurement and Installation of 3 units Softener Tanks	6,190,178.68
4. Construction of three additional chambers for the Sedimentation tank at Manampa Water Treatment Plant	2,689,462.13
5. Rehabilitation of 342 meters 6" diameter transmission pipeline along National highway corner Zamora to Bollos Streets	449,643.30
6. Pipelaying of 3" diameter UPVC pipeline from corner Diversion Road to San Ramon	283,037.11
7. Pipelaying of 3" diameter UPVC pipeline from San Ramon to Nangka, Canalum	112,502.70

The project was completed on January 29, 2009.

BAWAD is also in partnership with LGU through the Rural Health Services of the City in terms of providing water quality testing equipment/reagents and subsidizing its barangay health workers in maintaining its objective that water and sanitation are partners for a healthy and strong citizenry.

The BAWAD also embarked on a strong partnership with LGU in meeting the water needs of the hinterland barangays of Bayawan city. Technical and institutional development services were extended by BAWAD to the operation of the waterworks system of the rural barangays.

In 2012, the BAWAD received the 30 Million NLIF-PSF which was converted into a regular Window I loan from LWUA. An 8.5 kilometer, 8 "diameter UPVC 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.

Today, the district has eighteen regular personnel and 18 Job Orders serving 4,445 connections at almost 27,000 populations providing safe water to its constituents. The service area includes the seven urban barangays and four hinterland barangays of Bayawan City. It already extended its service to the neighboring barangay of Santa Catalina, Barangay Caranoche.



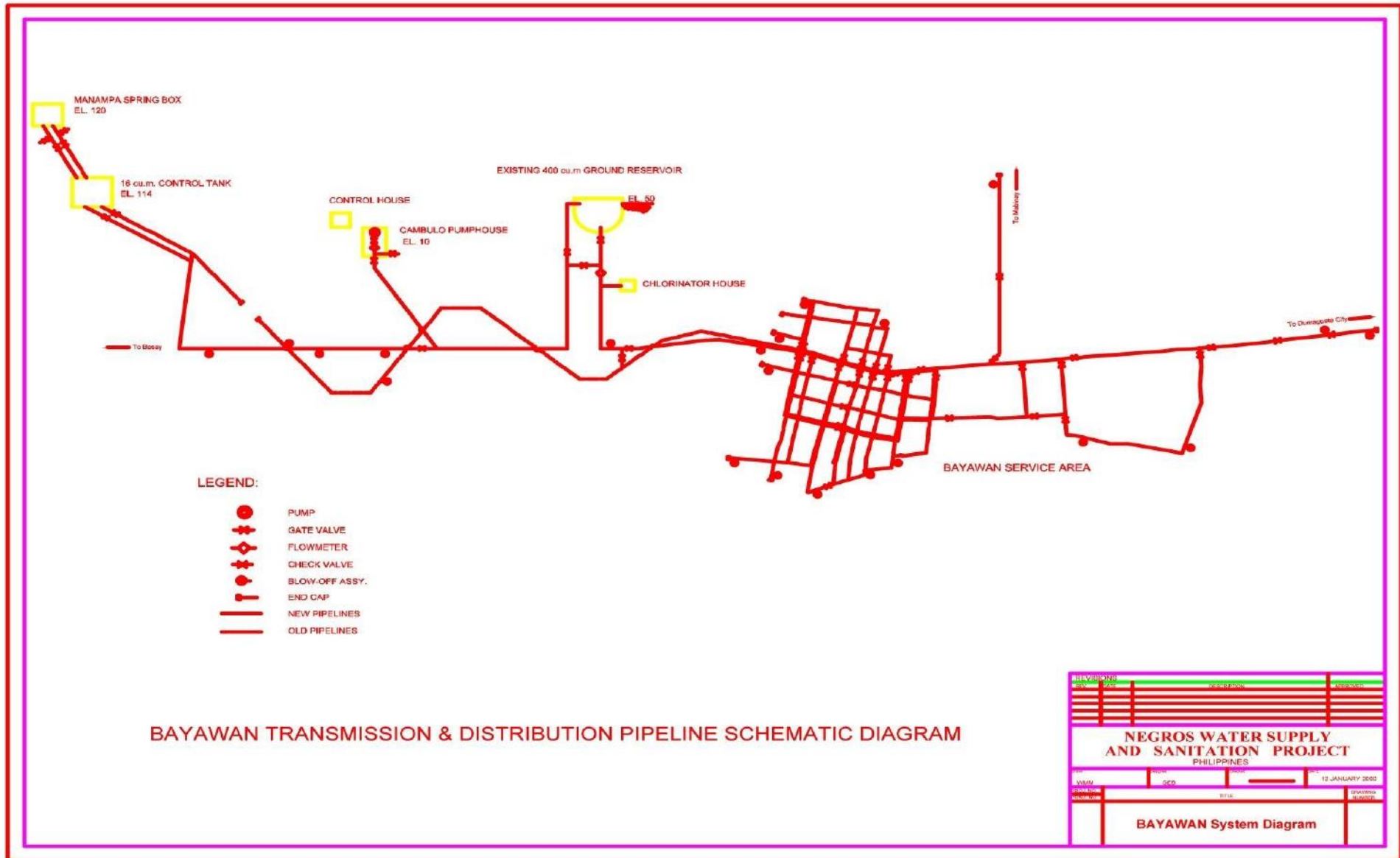
## **Vision Mission Statement**

**Improved living conditions of the target population of Bayawan City thru-24 hour clean drinking water...**

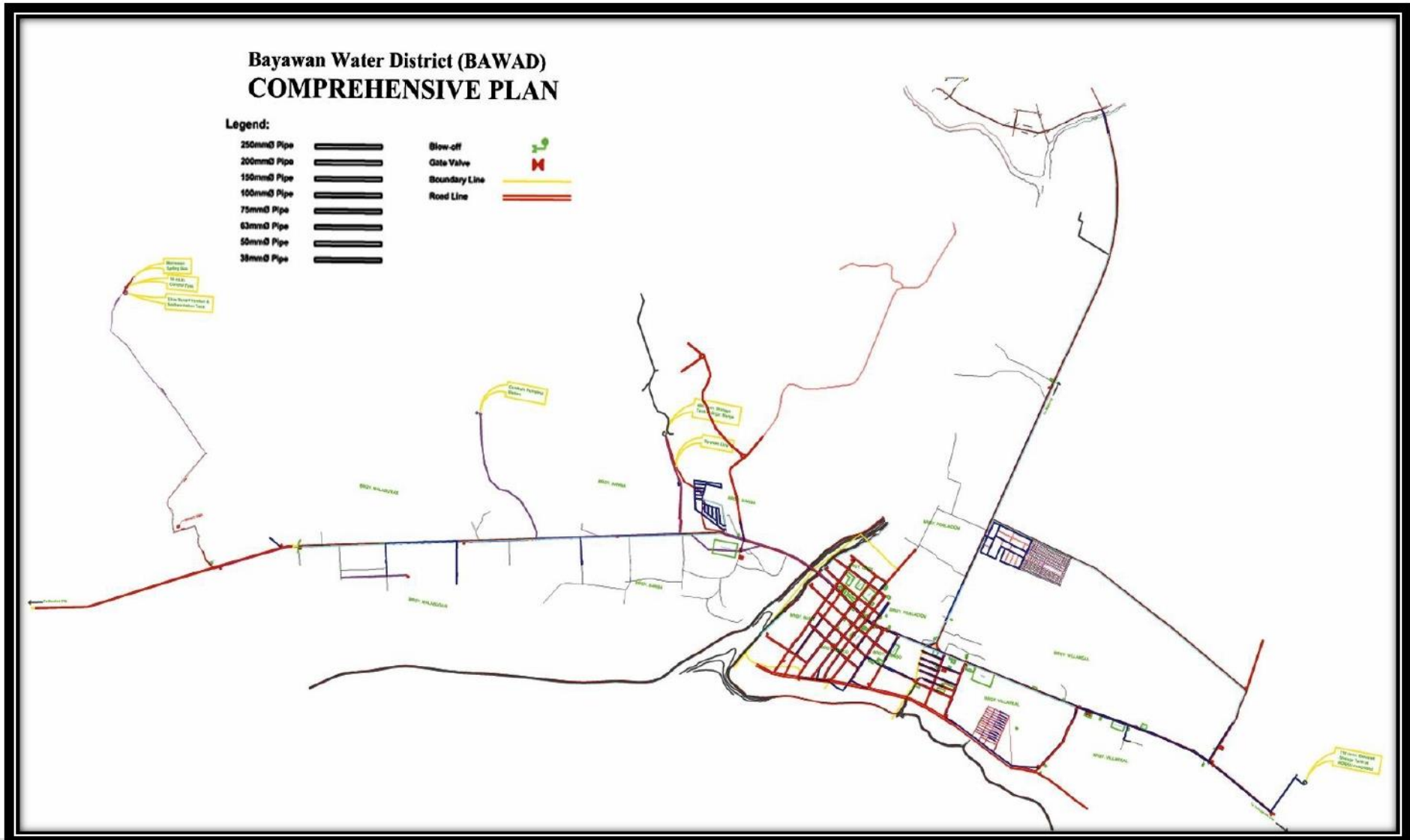
## **Goals and Objectives**

**To provide 24-hour filtered potable water supply with consideration to sustain shared neighborhood faucets, increased hygiene awareness and improved health situation to the target population of Bayawan City.**

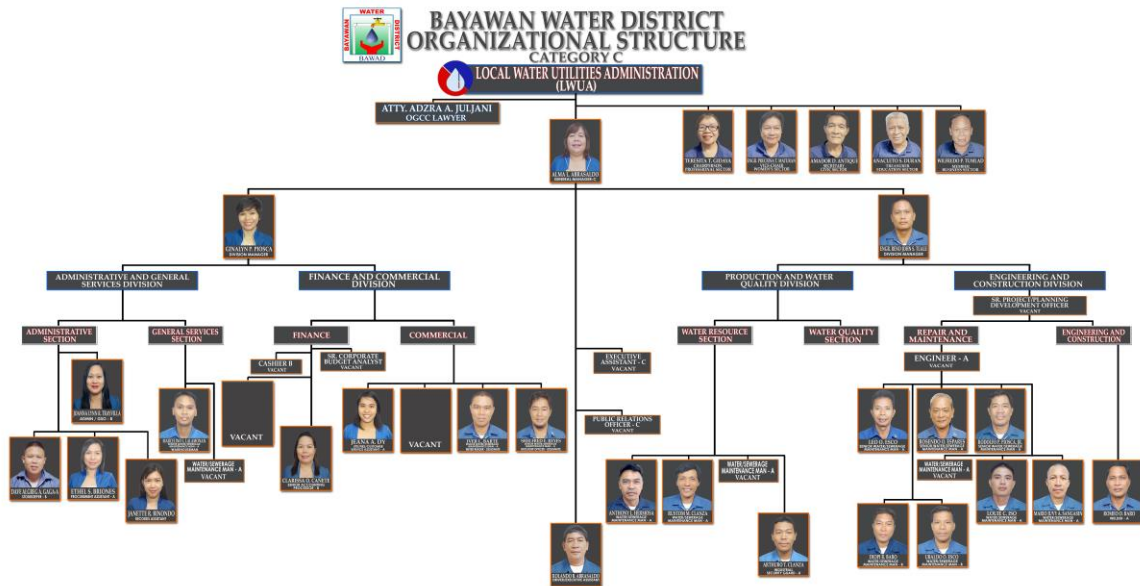
### 3.4 BAWAD Schematic Diagram



### 3.5 BAWAD Comprehensive Plan



## IV. ORGANIZATION AND RESPONSIBILITIES



### 4.1 Office of the Board of Directors

This office is the center for policy making, review and chaired by the elective Chairman of the Board of Directors. It is composed of a 5 member Director representing the different sectors in the community. One member shall be a representative of civic-oriented service clubs, one member a representative of professional associations, one member a representative of business, commercial or financial organizations, one member a representative of educational institutions and one member a representative of women's organizations. No public officials shall serve as director.

### 4.2 Office of the General Manager

The office of the General Manager is the central control over all the divisions in BAWAD. It renders strategic support functions such as planning and design of expansion areas, performance monitoring on operation and maintenance of water facilities, strong financial control, and implementation of information system, maintenance of hardware and software and legal assistance supported by the Office of the Government Counsel.

### **4.3 Administrative/Finance and Commercial Division**

This group is composed of the Administration Section, the Accounting/Finance Section and the Customer Services Section. It is headed by a Division Manager C.

#### ***Administrative Section***

The Administrative Section is responsible to the following functions/responsibilities: General Services, Human Resource Management, Procurement, Storage and issuance of supplies. It is also responsible for plant tours, media and LGU relations, housekeeping and maintenance of all buildings and equipment. This section is also the focal person in the implementation of GAD related activities. It performs audit compliance to standard response time to customer request.

#### ***Accounting/Finance Section***

The Accounting/Finance Section is responsible for keeping track on the financial aspect of water supply operation. It is tasked to see to it that daily collection and disbursements and budgeting are done according to sound financial control.

#### ***Customer Service Section***

The Customer service Section is in charge of client care, client satisfaction, complaints, application for new connections, relocation, disconnection and sees to it that customers are well informed of policies whenever they would want to be served by the BAWAD. An orientation seminar every Saturday at 8:00am is conducted by this section for info campaign. Meter readings, billings and daily collection are the primary function of this unit.

Collection efficiency expressed in terms of peso and collection days is the target of this section

It is responsible for the recording of receipts, water bill generation and updating of customer accounts. It is also in-charge in billing and disconnection of past due accounts.

#### ***The Human Resource Management Section***

The Human Resource Management Section provides as an avenue in processing, motivating, integrating and developing employees for their jobs in the service of the Water District and its outside environment through planning, organizing, leading and controlling, utilizing employees' acquired knowledge and competencies, aptitude and values. It also serves as the channel in attaining the vision and aspirations of the Water District.

The Human Resource Management Section further serves the following functions:

*A. Job organization and information*

1. Reviews and gathers pertinent data relative to operations and job description/specifications.
2. Prepares and classifies specific duties and responsibilities for a particular job/position.
3. Defines the job qualifications and standards needed to perform accordingly a particular position.
4. Examines and conducts climate survey to address employee dissatisfaction and or promote furtherance to agency.
5. Introduce mechanisms and or reinforcement vital in improving employee output such as multi-tasking; job rotations, group work, works simplification, new and effective software/technologies which are applicable for the job.
6. Publications of vacant positions.

*B. Permanent Records and Documentation/Business Partner*

1. Ensures reliability in the safekeeping and preservation of permanent records of employees for easy reference.
2. Maintains leave credits recording; balances, terminal leave credit computations and equivalent monetary value.
3. Regularly updates and prepares the employee service records.
4. Assist all retirees in the preparation of all documents relevant to the processing of their retirement benefit;
5. Maintains an updated employees' Personal Data Sheet for reference.
6. Prepares certifications for employees.

*C. Procurement and Separation / Administrative expert*

1. Responsibility of the Human Resource Planning.
2. Responsibility of Recruitment/Hiring activity.
3. Screening and selection of competent and qualified applicants.
4. Preparation of appointment and submission to the Civil Service Commission for verification and approval.
5. Provides assistance and guidance to employees who are retiring and or
6. resigning/due for separation (voluntary and involuntary), and other related mode.

*D. Research and Development / Change Agent*

1. Implementation of a established employee programs for both personal and career development.
2. Promotes organizational development process for training, education and the likes.
3. Formulate needs assessment and development for the conduct of training/s.
4. Establish a Counselling Program for employees to assist in addressing issues on both job and personal area.
5. Determine parameters in cost and benefits/estimates of Human Resources Development Programs;
6. Formulates and upholds orientation programs and public information for water conservation and other related programs for the interest of good services.



<b>Numerical</b>	<b>Adjectival</b>	<b>Description</b>
4.01 to 5.00	Outstanding	<p>Performance exceeds targets by 30% and above of the planned targets; has zero (0) incidence of backlog/ delay/ error.</p> <p>Has zero (0) incidence of under time tardy in a month/ quarter.</p>
3.01 to 4.00	Very Satisfactory	<p>Performance exceeds target by 15% to 29% of the planned targets; Has not more than three incidences of backlog/ delay/ error.</p> <p>Has not more than three (3) incidences of under time/ tardy in a month/ quarter.</p>
2.01 to 3.00	Satisfactory	<p>Performance of 100% to 114% of the planned targets. For accomplishments requiring 100% of the planned targets such as those pertaining to money or accuracy or those which may no longer be exceeded, the usual rating of 5 points for those who met the targets or two (2) for those who filed or fell short of the target applies; Has not more than six (6) incidences of backlog/ delay/ error.</p> <p>Has not more than six (6) incidences of under time/ tardy in a month/ quarter.</p>
1.01 to 2.01	Unsatisfactory	<p>Has not more than six (6) incidences of under time/ tardy in a month/ quarter.</p> <p>Performance of 51% to 99% of the planned targets; Has not more than nine (9) incidences of backlog/delay/error.</p> <p>Has less than nine (9) incidences of under time/tardy in a month/quarter.</p> <p>Has one (1) violation in the Revised Rules on Administrative</p>
0 to 1.00	Poor	<p>Performance failing to meet the planned targets by 50% or below; Has more than ten (10) incidences of backlog/ delay/ error.</p> <p>Has more than ten (10) incidences of under time/ tardy in a month/ quarter</p> <p>Have two or more violations in the Revised Rules on Administrative Cases (RRAC) provided that the employee is found to be accountable to the offense (i.e. served Memo on Disciplinary Action (MDA))</p>

### *Maintenance and Integration / Employee Champion*

1. Maintains and monitors the salary standardization law and all other related regulatory changes.
2. Ensures proper implementation of benefits and other additional compensation provided by law.
3. Introduces motivational programs for work output enhancement of employees.
4. Implements parameters on grievance, settlement of disputes, management and resolution of conflict.
5. Establishes efficient and effective strategic Performance Management system.
6. Establishes policies and parameter on fair and judicious means of promoting employees and merit system in giving recognition awards, rewards and commendations.
7. Introduces and promotes safety and health programs, physical fitness programs and measures that help reduce and minimize employee turn-over due to poor health and accidents.
8. Maintains a regular Management Development Conference/meeting for department heads, division heads and top management officials.
9. Assist the general manager in the conduct of administrative disciplinary actions against an employee/s.
10. Defines a clear job profile/s and system/s of roles and responsibilities.
11. Maintains and implements the "Mamayan muna, hindi mamaya na" program of the Civil Service Commission.
12. Monitors the observation and compliance of all civil service laws and rules, RA 6713 and rules, RA 6713 and other related laws

### *F. Strategic Performance Management System (SPMS)*

In line with the Guidelines in the Establishment and Implementation of Agency Strategic Performance Management System under MC No. 6, s. 2012 and CSC Resolution No. 1200481, the Bayawan Water District adopts the herein Performance Management System to be referred as Bayawan Water District Strategic Performance Management System (SPMS).

1. All Department/Division/Section of Bayawan Water District adopts the following mode/basis of rating:

2. A memo on the Committee on the Performance Management Team (PMT) is release every January of the year.
3. A PMT meeting is also conducted on a quarterly basis or whenever needed to discuss/raise concerns/issues relative to the implementation of the SPMS.
4. The agency also issued an updated individual job description/additional assignment to further improve employees' work output effective April 15, 2014. A memo regarding job description/designate is also being issued to an employee whenever there is a change/additional assignment.
5. For the Technical Division composed of mainly Maintenance Man, timeliness on maintenance related task/s is based on the required number of days as specified.
6. For Core/Support functions that exceeds 30% and above of the planned targets, however, employee was found to be accountable to at least one (1) violation on the Revised Rules on Administrative Cases (RRACS) and the likes - rating is automatically two (2); Performance of 99% due to violation of RRACs provided that the employee is proven guilty/liable to such act.
7. Repeated offenses or two or more violations of Revised Rules on Administrative Cases (RRACS) and the likes will automatically give an employee a rating of 1 (one) or Poor.

A performance rating of one (1) may also be given to an employee/s at an extent ONLY if the employee's action is proven to have cause a major NEGATIVE impact on the agency's image and total performance.

Performance Monitoring and Coaching Journal as well as Professional Development is also being implemented whenever necessary.

8. Individual employee's Summary of Accomplishment Report is submitted to the Human Resource Management Officer (HRMO) and rating is done.
9. After Immediate Superior's rating, all completed forms are then forwarded to the HRMO Designate to collate and have it reviewed and signed by the PMT members.
10. All signed SPMS forms are then forwarded to the General Manager for final approval and signature.
11. The HRMO Designate then post at the Bulletin Board summary of the SPMS rating for the next fifteen (15) days).
12. A copy of the summary of the SPMS result is submitted to the Civil Service Commission (CSC) - Field Office in Dumaguete City.
13. A recommendation is prepared by the PMT secretariat addressed to the General Manager for the Most Outstanding Employee.

## **Technical Division**

### ***Repair and Maintenance Section***

This group handles received JOB ORDER REQUEST from the Commercial Section. They conduct field inspection, material estimate and installation of service connections, relocation of meters in service area, inspection and repair of leaks before and after service lines, reconnection of disconnected service lines, and maintenance of water meters as well as adequate water supply services.

### ***Engineering and Construction section***

This section is responsible regarding planning and construction programmes. It conducts design and construction activities of the proposed expansion of service area of the district's current and future water supply and provides technical support to ensure water quality.

### ***Production, Water Resources and Water Quality Section***

This section of the district ensures that adequate, potable and sufficient safe quality drinking water is available to the community 24 hours a day. It operates the water treatment plant and the various pumping stations. It is responsible of preventing and controlling the possibilities of contamination from the catchment, treatment plant down to the service area that threatens water quality and might affect human health. This section has a big impact to attain the vision and objectives of the districts that is "To improved living condition of the target population of Bayawan City thru-24 hour clean drinking water " and its goals of " providing 24-hour filtered potable water supply with consideration to sustain shared neighbourhood faucets, increase hygiene awareness and improved health situation to the target population of Bayawan city.

It is also responsible to the conduct of chlorination or disinfection and frequent sampling and analysis of various water quality standards under the Philippine National Standards of Drinking Water (PNSDW) under the auspices of the Department of Health (DOH)

The Water Quality Laboratory takes care of the best quality of water produced and distributed to the consumers. Microbiological testing is done up to two times per month by in-house personnel. One testing monthly of one sample per 5000 population in the service area sampling points to be analyzed by a Third Party DOH Accredited Laboratory. Physical and Chemical analysis of the Mandatory Parameters is collected and analyzed once a year.

More samples and analysis on Residual Chlorine, Residual Chlorine Dioxide, Total Dissolve solids, Total Hardness, pH, Total Chlorides is routinely done for the monitoring of operational parameters.

## **V. OPERATIONS CONTROL AND SUPERVISION**

### ***General Manager***

1. Oversees the entirety of the agency's operation.
2. Managing and directing overall daily operations.
3. Supervision on all tasks related to everyday operation/s.
4. Act of decide on operational matters.
5. Ensure smooth and efficient day to day operations.
6. Address all queries and concerns of both the employees and concessionaires.
7. Develop, review and implement agency procedures.
8. In-charge with financial, business and administration matters.

### ***Finance and Administrative Division Manager***

1. Directly coordinate and report to the General Manager all financial, business and administration matters.
2. Develop operational strategy and ensure that operational activities meet with the organizational requirements.
3. Coordinate and assist the General Manager in Planning short term and long term projects, budgets, expense controls, schedules and manpower.
4. Preparation of monthly/quarterly accomplishment reports.
5. Monitoring of accomplishments of all assigned personnel.
6. Completion of other tasks assigned by the General Manager.

### ***Technical Division Head***

1. Coordinate with the General Manager's daily operations of all technical related concerns.
2. Supervision of all technical-related tasks of everyday operation/s.
3. Act or decide upon clearance from the General Manager on technical-related matters.
4. Coordinate and report to the General Manager all matters pertaining to technical and supervision of its staff.
5. Develop and endorse operational strategy and ensure that operational activities meet with the organizational requirements.
6. Coordinate and assist the General Manager in planning short term and long term projects, budgets expense controls. schedules and manpower of the Technical/Operational group.
7. Preparation of monthly/quarterly accomplishment reports.
8. Monitoring of accomplishments of all assigned personnel.
9. Completion of other tasks assigned by the General Manager.

## **VI. OPERATING PROCEDURES**

### **MANAMPA SOURCE**

#### ***Manampa Filter Cleaning Procedure***

1. Close supply line valve from the sedimentation to filter bay.
2. Close filter discharge valve to the clear well tank.
3. Open drain valve to drain the chamber, and wait 30 minutes to allow formation of filtrate cake.
4. Scrape the formed cake, about 1 inch thick.
5. Scrape scale build up in the walling.
6. Put outside the chamber scraped materials ready for cleaning.
7. Load additional filter sand from the stock of clean filter sand.
8. Level the sand properly, slightly inclined to the drain.
9. Perform final backwashing procedure.
10. Close drain valve, and open supply valve from the sedimentation chamber.
11. When chamber is filled up, open discharge valve to the clear well.
12. Open the drip type chlorinator.
13. End.

#### ***Backwashing of Filter Bays Procedure***

1. Close supply line valve from the sedimentation to filter bay.
2. Close filter discharge valve to the clear well tank.
3. Open drain valve to drain the chamber.
4. Open backwash valve to start backwashing until water flowing to drain is clear.
5. Close backwash and drain valve.
6. Open supply valve from the sedimentation chamber and wait until chamber is filled up.
7. Open discharge valve to the clear well tank.
8. End.

#### ***Chlorinating Procedure***

1. Close supply line valve from the sedimentation to filter bay.
2. Weigh 6 kilos of chlorine on normal days and 9 kilos during rainy days.
3. Pour chlorine on the mixing tank.
4. Stir the solution for about 30 minutes or until granules fully dissolved and mixed.
5. Cover the mixing tank and wait for 24 hrs to allow sediments and undissolved solids to settle down to the bottom of the tank.
6. When solution is already clear, yellowish in color, drain the mixture to the chlorinating tank.
7. Fill the siphon hose with water until air is out and put back to the chlorinating tank to start chlorination.
8. Check Residual Chlorine in the discharge of the clear well tank between values of 2.0 to 3.0 ppm.
9. Check Residual chlorine, if do not conform, adjust flow rate and back to step 8.
10. End.

### ***Filter Sand Cleaning***

1. Bagging of pulled out sand during filter cleaning (using empty cement sack).
2. Open supply line valve going to the cleaning chamber.
3. Sand screening at the cleaning chamber with running water.
4. Pour 30 bags of sand to be cleaned.
5. When loading is done, rinse the sand until water is clear.
6. Unload washed sand from the chamber to the storage area.
7. Cover the clean sand to protect from dirt.
8. End.

### ***Cleaning of Spring Box***

1. Tender request for cleaning the spring box in the office to the production manager.
2. Production manager scheduled the cleaning and have it approved by the immediate supervisor.
3. Immediate supervisor approved the schedule.
4. Production Manager assigns personnel to execute the request.
5. Personnel go to site and production manager inform Cambulo pump operator for the interruption for the station to start when pressure drops below 50 psi.
6. In the site, close discharge valve to the treatment.
7. Open the drain valve.
8. Start cleaning the inside walling.
9. Unload debris, sand from the box.
10. Clear intake pipe screen form debris and other clogged materials.
11. When all sand is clear, all must move out and wait until water inside is clear.
12. Close drain valve.
13. Open discharge valve to the treatment.
14. Tender report to office via radio that cleaning is done.
15. Office informs Cambulo Pumping Station for shut down.
16. End.

### ***Softener Regeneration Procedure***

1. Check hardness in the discharge of the softener.
2. If Hardness reading above 300, do regeneration process.
3. Close supply valve # 1 of the softener.
4. Close discharge valve # 5 of the softener.
5. Open valve # 3 to drain.
6. Open valve # 4 to start backwashing for 15 minutes.
7. Close valve # 4 & 3 to stop backwashing.
8. Open valve # 5 to drain.
9. Open Brine supply valve # 2 slowly for until solution is consumed.
10. Close brine supply valve # 2.
11. Open supply valve # 1 to do rinsing for 15 to 30 minutes and test for chloride using the laboratory procedure.
12. Close drain valve # 5.
13. Open discharge valve # 6 to go back to normal operation.

***Note: For every chamber to be regenerated, use one tank of brine solution. Regeneration should be done one chamber every day.***

### **CAMBULO PUMPING STATION**

#### ***Pumping operation procedure***

1. Go to the control house, turn on control board main breaker and check voltage. Voltage must be 440 - 460 volts.
2. Go back to the pumping house, Turn on Panel board main breaker.
3. Check voltage in every line phase by turning knob to line 1, line 2 and line 3. Voltage should not be less than 440 volts.
4. When voltage is correct, proceed to starting procedure but if not correct proceed to Generator Set operation procedure.
5. Open by pass valve.
6. Open priming valve to prime the pump.
7. Open suction line air release until all air trapped is released then close.
8. Close priming valve.
9. Start the pump by pushing start up button.
10. After 3 seconds, open discharge valve slowly and by pass for 5 - 10 minutes, maintain pressure not less than 25 psi.
11. Open valve going to the transmission line two rounds and slowly closed by pass valve.
12. Fully open valve to the transmission line.
13. Turn on chlorinator pump, when chlorinator tank is already  $\frac{1}{4}$ , fill it with solution from the mixing chamber.



14. Monitor chlorine residual at the outlet port, residual must be between 2.0 to 3.0 ppm.
15. End.

### ***Preparing chlorine solution***

1. Weigh 6 kilos of chlorine granules.
2. Fill the 200 liters mixing chamber.
3. Pour the 6 kilos chlorine.
4. Stir manually for 15 minutes or until granules is fully dissolved and thoroughly mixed.
5. Cover the mixing chamber, wait 24 hrs to fully settle un-dissolved particles.
6. Open drain valve to the chlorinator tank, do it slowly without shaking the mixing chamber so as not to disturb settled particles.
7. Before mixing another batch, collect settle particle and put it in an empty chlorine container for proper disposal.
8. Clean the chamber, ready for the next mixing.
9. End

### ***Generator set operation during low voltage / power failure procedure***

1. Turn off all breakers in the pump house.
2. In the control house, turn off all breaker.
3. In the generator house, check fuel level, make sure it is full tank.
4. Check oil level if below correct level, fill it up.
5. Open ventilating window.
6. Push on button to start the engine.
7. Warm up the engine for 2 - 3 minutes.
8. Turn on Generator Set main breaker.
9. Turn on gen set breaker in the double throw breaker.
10. Turn on breaker in the control panel.
11. Proceed to pumping procedure.
12. Close door grills; Tender should check Generator Set at least every hour for fuel level.
13. When power from the cooperative comes back, turn off pump.
14. Turn off breaker in the panel and control board.
15. Turn off gen set breaker in the double throw breaker.
16. Turn on breaker in the cooperative power source.
17. Turn on control breaker, check for correct voltage; if voltage is correct proceed to pumping operation procedure.
18. If voltage is not correct, turn off control board breaker go back to step # 8.
19. 19. End.

## TRANSMISSION PIPELINES

### *Transmission or distribution mainline leak repair procedure*

1. Commercial accept the request or report and make job order and have approved y authority.
2. Maintenance Manager accepts the job order and has it schedule.
3. Plumber receives the job order and conduct site inspection to assist the situation then caution signs is placed.
4. Plumber reports to the Maintenance Manager the situation via cell phone or radio.
5. Maintenance Manager assigns additional manpower to help the repair.
6. One assisting plumber process request and prepare materials needed while other go to site and starts clearing procedure.
7. Plumber who assists the situation then isolates the area if there is any. And if not, plumber goes to the PRV area in Moyao to close the main valve.
8. While commercial informs the I.T. for him to do immediate public announcement through radio and text blasts to the affected areas for the advisory of water interruption including estimated time of supply resumption.
9. When clearing of the pipe is done, plumber confirms the materials brought to site if correct, if not replacement should be done immediately.
10. Water pump is used to drain the water to prevent ingress contamination.
11. Cutting or pull-out of affected pipe or fitting done.
12. Chlorine about 200 grams is place inside the pipe of the to disinfect later the system.
13. Installation of new or fitting for repair is done.
14. Nearest blow-off is then open, and main supply valve is slowly open.
15. After flushing when water is already clear. Blow-off is close.
16. While pressure is building up, check the fitting for leaks, if there is any; tighten the bolts if none, proceed to next.
17. Backfilling and compaction is done.
18. Plumber then informs the maintenance Manager and commercial that repair is done.
19. If site is not safe for vehicle to pass; caution signs are placed on the area.
20. If the site is a concrete, restoration should be done next day after repair is made.

## **SERVICE LINES REQUESTS**

### ***Service line leaking before meter:***

1. Commercial receives the requestor report for the leaking.
2. Maintenance Manager accepts the job order and has it scheduled.
3. Plumber receives the job order and conduct site inspection to assist the situation then caution signs is placed.
4. Plumber checks nearest water meter; opens a faucet to verify if the leak is on this connection.
5. Plumber look for old condemned connection, if there is any plumber open to check if the leak is going to the connection.
6. Plumber clear / excavate the pipe.
7. Plumber will assess the leak and materials needed for the repair.
8. Plumber withdraws materials needed in bodega.
9. Plumber opens a faucet from the connection or opens the end of the connection.
10. Plumber will do the repair on the leak.
11. Flushing is made in the end or faucet until water is clear.
12. Hydro testing is done, check fitting for leaks, if there's any retighten or repair again.
13. Backfilling and compaction is done.
14. If site is not safe for vehicle to pass, caution signs are placed on the area.
15. The concessionaires then conform that the repair is made.
16. Accomplished Job order is forwarded to the commercial.
17. End.

### ***Service line leaking after meter:***

1. Commercial receives the requestor report for the leaking.
2. Maintenance Manager accepts the job order and has it scheduled.
3. Plumber visits the site to assess the leaking.
4. Plumber will excavates and clear the leaking.
5. Water meter lock wing is then closed.
6. Plumber identifies the materials needed for the repair.
7. Plumber will inform the concessionaire for the materials needed.
8. The concessionaire will produce the materials or pays to the office for the needed materials.
9. Plumber request needed materials in the bodega.
10. Plumber will do the repair.
11. Plumber opens a faucet and the lock wing in the standpipe.
12. Flushing is done until water is clear and faucet is closed.
13. Check the fitting installed for leaks, if there is any; tighten it or repair it again.
14. Backfill excavated materials and do compaction.
15. Have the owner conform job order that repair is done.
16. Plumber will now forward the job order to the commercial department for the accomplishment report.
17. End.

## SERVICE CONNECTION - RELATED REQUESTS

### ***Stand pipe leak repair***

1. Commercial receives the request or report for the leaking.
2. Maintenance Manager accepts the job order for schedule.
3. Plumber visit the site and assess the leaking, if leak is after the meter the concessionaire provides the materials for repair if before the meter the WD provides the repair materials.
4. Plumber closed the standpipe lock wing.
5. Plumber will do repair and install repair materials.
6. Hydro testing is made, check for leaks if any, do repair again.
7. Have the concessionaire conform job order that repair is done.
8. Plumber will forward the job order to the commercial department for the accomplishment report.
9. End.

### ***Change of Water Meter***

1. Commercial Section receives the request or report for the change meter.
2. Commercial section makes Job Order for the request.
3. Maintenance Manager accepts the J.O. and has it schedule.
4. Plumber visit the site, open a faucet and check if water meter is turning and dials is moving.
5. If abnormalities are observed, water meter is pulled out.
6. Water meter is then clean and install it and check if it functions correctly. If so, calibrate the water meter using a calibrating bucket. Error must be within +/- 5% only.
7. If water meter is proven broken the district will provide a replacement but if is intentionally broken the concessionaire will pay for the water meter. In case of thief, the concessionaire will secure police blotter and bring it to the office and the management will provide replacement for the first incident only, the following incident the concessionaire will pay already the water meter as the replacement.
8. Plumber will temporarily plug the connection.
9. Plumber request in the office for water meter and have it approved by the authority.
10. Plumber installs the new water meter.
11. Concessionaire conform the job order that repair is done.
12. Plumber will now forward the job order to the commercial department for the accomplishment report.
13. End.

### ***New Water Service Connection***

1. Inquire at the Customer Service/Complaint Desk the requirements for application and schedule for the attendance of NSC Orientation.
2. Attend Orientation Seminar. (Orientation Schedule is every 1st and 3rd Saturday of the month. 8:00 a.m. at BAWAD office).
3. Fill-up and submit the Service Application Form C-1 together with other requirements needed to the Customer Service/Complaint Desk for verification.
4. Plumber will do the investigation, inspection, and verification of the area to be installed and do estimates for additional materials needed.
5. Fill up and sign the Water Service Contract and have it signed by the Division Manager and General Manager. Afterward, have the Service Contract notarized.
6. Submit the notarized Service Contract together with the other documents to the Customer Service/Complaint Desk and pay installation fee and other applicable charges at the Teller.
7. Present your Official Receipt to the Customer Service/Complaint Desk and sign logbook for your service request.
8. Plumber receives the job order from the commercial.
9. Plumber request for connection materials in the bodega approved by the authority.
10. Plumber assembles standpipe assembly and faucet stand.
11. Plumber will go to the site.
12. Excavates for the mainline tapping.
13. Tap the service connection.
14. Connect to the stand pipe and to the faucet stand.
15. Backfilling and compaction for the mainline tapping.
16. Have the concessionaire conform job order that new connection is well done.
17. Plumber will now forward the job order to the commercial department for the accomplishment report.
18. End.

### ***Water Meter Reconnection***

1. Go to the Customer Service/Complaint Desk, verify the status of the Service connection and inquire on requirements.
2. Comply/Fill-up form C-5 and Submit requirement/s to the Customer Service/Complaint Desk and receive assessment for corresponding fees.

***NOTE: Accounts disconnected for more than two (2) years should attend the Orientation Seminar before the Re-installation request be approved/granted.***

(Orientation Schedule is every 1st and 3rd Saturday of the month. 8:00 a.m. at BAWAD office).

*If the requestor is the Account Holder: -*

Please present a valid ID.

*If the requestor is not the Account Holder:*

-Please submit an authorization letter duly accomplished by the account holder.

-Photocopy of the account holder's valid ID and the authorized representative.

3. Pay corresponding dues and re-installation fees to the Teller.
4. Go back to the Customer Service/Complaint Desk and present Official Receipt.
5. Sign logbook for your service request and re-installation schedule at the Customer Service/Complaint Desk.
6. Commercial receives the request or report for the change meter.
7. Maintenance Manager accepts the job order and has it schedule.
8. Plumber will withdraw concessionaire's water meter in the bodega. 9. Plumber will find for the old connection tapping or standpipe.
10. Plumber will do flushing on the line until water is clear.
11. Plumber installs the water meter in the standpipe.
12. Plumber opens control valve.
13. Check for standpipe leaks; if any; do repair.
14. Have the concessionaire conform job order that reconnection is well done.
15. Plumber will now forward the job order to the commercial department and record it for accomplishment report.
16. End.

***Water Meter Disconnection***

1. Commercial receives the request or report for the disconnection.
2. Maintenance Manager accepts the J.O. and has it scheduled.
3. Plumber visit the site, pull out water meter.
4. Plug the service connection.
5. Have the concessionaire conform job order that disconnection is done.
6. Forward to the commercial the accomplished job order.
7. Deposit the pulled out water meter.
8. Store keeper records the last reading, water meter serial number and the date disconnected.
9. End.

### ***Re-routing procedure of Water Service Connection***

1. Inquire at the Customer Service/Complaint Desk the requirements for application and status of the account.
2. Fill-up and submit the Service Application Form C-4 together with other requirements needed to the Customer Service/ Complaint Desk for verification.
3. Fill-up and submit the Service Application Form C-4 together with other requirements needed to the Customer Service/ Complaint Desk for verification.
4. Concessionaire will pay the re-routing fee.
5. Go back to the Customer Service/Complaint Desk and present Official Receipt.
6. Sign logbook for your service request at the Customer Service/Complaint Desk.
7. Commercial receives the request or report for the change meter.
8. Maintenance Manager accepts the job order and has it scheduled.
9. Plumber visit re-routing site and conduct estimate of materials needed.
10. Plumber visits the existing site and check materials that can be pulled out and still useable for the re-routing.
11. Inform the concessionaire on the additional materials to be used if there is any.
12. Concessionaire pays the excess materials.
13. Plumber pull-out standpipe assembly as well as the other materials that is still useable.
14. To the re-routing site plumber proceed with the new service connection procedure.
15. Have the concessionaire conform job order that re-routing is well done.
16. Plumber will now forward the job order to the commercial department and record it for accomplishment report.
17. End.

### **VII. CONTROL OF RECORDS AND DOCUMENTS**

1. Incoming memo/correspondence
  - a. Receive letter/document/etc
  - b. Log to log book assigning control no/s
  - c. Endorse received letter/doc to concerned employee/s
2. Outgoing memo/correspondence
  - a. Receive letter/document/etc
  - b. Log to log book assigning control no/s
  - c. Endorse received letter/doc to concerned employee/s
3. 201 file
  - a. All 201 files have table of contents
  - b. All memos received by the employee are filed according to its content
  - c. 201 files are safely kept in a 201 cabinet

4. Board meeting
  - a. All approved resolutions are filed accordingly
  - b. Minutes of the meeting and attendance are filed in a data folder
  - c. All BOD related documents/files are kept by the Board Secretary
5. Old files/documents
  - a. Old files/documents are kept and maintained in a filing cabinet/ledge
6. Financial statements
  - a. All Financial statements are kept and organized by the Accounting
7. Journal vouchers
  - a. All journal vouchers are organized and kept by the Accounting
8. Reports submitted to Local Water Utilities Administration (LWUA)
  - a. Log and copy of the files are kept by the Secretary/personnel in-charge as designated by the General Manager
9. All other files
  - a. File in an individual folder
  - b. Annual filing is done



**APPENDIX A.****LIST OF FEES AND CHARGES**

<b>PARTICULAR</b>	<b>AMOUNT</b>
1. New Water Service Connection	<b>Php. 3, 900.00</b>
2. Meter Reconnection / Re-installation	<b>Php. 600.00 (plus the unpaid bills)</b> <b>Php. 198.00 (if voluntary cut-off without any unpaid account)</b>
3. Service Line Relocation / Re-route	<b>Php. 600.00</b>
4. Water Analysis	
<i>a.) Dissolved Oxygen</i>	<b>Php. 280.00</b>
<i>b.) Conductivity</i>	<b>Php. 80.00</b>
<i>c.) Alkalanity Total</i>	<b>Php. 185.00</b>
<i>d.) Physical Test</i>	<b>Php. 735.00</b>
<i>e.) Chemical Test</i>	<b>Php. 1, 750.00</b>
<i>f.) Bacteriological Test</i>	<b>Php. 300.00</b>

**APPENDIX B.****APPROVED WATER RATES AND CLASSIFICATION**

<b>CLASSIFICATION: RESIDENTIAL / GOVERNMENT</b>					
<b>SIZE</b>	<b>MINIMUM CHARGE</b>	<b>COMMUNITY CHARGES</b>			
		<b>11-20</b>	<b>21-30</b>	<b>31-40</b>	<b>41 Up</b>
<b>1/2" ø</b>	<b>198.00</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>3/4" ø</b>	<b>316.80</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>1" ø</b>	<b>633.60</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>1 1/2" ø</b>	<b>1,584.00</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>2" ø</b>	<b>3,960.00</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>3" ø</b>	<b>7,128.00</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>
<b>4" ø</b>	<b>14,256.00</b>	<b>24.30</b>	<b>29.20</b>	<b>34.25</b>	<b>39.50</b>

<b>CLASSIFICATION: COMMERCIAL</b>					
<b>SIZE</b>	<b>MINIMUM CHARGE</b>	<b>COMMUNITY CHARGES</b>			
		<b>11-20</b>	<b>21-30</b>	<b>31-40</b>	<b>41 Up</b>
<b>1/2" ø</b>	<b>396.00</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>3/4" ø</b>	<b>633.60</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>1" ø</b>	<b>1,267.20</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>1 1/2" ø</b>	<b>3,168.00</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>2" ø</b>	<b>7,920.00</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>3" ø</b>	<b>14,256.00</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>
<b>4" ø</b>	<b>28,512.00</b>	<b>48.60</b>	<b>58.40</b>	<b>68.50</b>	<b>79.00</b>

<b>CLASSIFICATION: COMMERCIAL A</b>					
<b>SIZE</b>	<b>MINIMUM CHARGE</b>	<b>COMMUNITY CHARGES</b>			
		<b>11-20</b>	<b>21-30</b>	<b>31-40</b>	<b>41 Up</b>
<b>½" ø</b>	<b>346.50</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>¾" ø</b>	<b>554.40</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>1" ø</b>	<b>1,108.80</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>1½" ø</b>	<b>2,772.00</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>2" ø</b>	<b>6,930.00</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>3" ø</b>	<b>12,474.00</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>
<b>4" ø</b>	<b>24,948.00</b>	<b>42.50</b>	<b>51.10</b>	<b>59.90</b>	<b>69.10</b>

<b>CLASSIFICATION: COMMERCIAL B</b>					
<b>SIZE</b>	<b>MINIMUM CHARGE</b>	<b>COMMUNITY CHARGES</b>			
		<b>11-20</b>	<b>21-30</b>	<b>31-40</b>	<b>41 Up</b>
<b>½" ø</b>	<b>297.00</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>¾" ø</b>	<b>475.20</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>1" ø</b>	<b>950.40</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>1½" ø</b>	<b>2,376.00</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>2" ø</b>	<b>5,940.00</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>3" ø</b>	<b>10,692.00</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>
<b>4" ø</b>	<b>21,384.00</b>	<b>36.45</b>	<b>43.80</b>	<b>51.35</b>	<b>59.25</b>

CLASSIFICATION: COMMERCIAL C					
SIZE	MINIMUM CHARGE	COMMUNITY CHARGES			
		11-20	21-30	31-40	41 Up
1/2" ø	247.50	30.35	36.50	42.80	49.35
3/4" ø	396.00	30.35	36.50	42.80	49.35
1" ø	792.00	30.35	36.50	42.80	49.35
1 1/2" ø	1,980.00	30.35	36.50	42.80	49.35
2" ø	4,950.00	30.35	36.50	42.80	49.35
3" ø	8,910.00	30.35	36.50	42.80	49.35
4" ø	17,820.00	30.35	36.50	42.80	49.35

CLASSIFICATION: BULK					
SIZE	MINIMUM CHARGE	COMMUNITY CHARGES			
		11-20	21-30	31-40	41 Up
1/2" ø	247.50	30.35	36.50	42.80	49.35
3/4" ø	396.00	30.35	36.50	42.80	49.35
1" ø	792.00	30.35	36.50	42.80	49.35
1 1/2" ø	1,980.00	30.35	36.50	42.80	49.35
2" ø	4,950.00	30.35	36.50	42.80	49.35
3" ø	8,910.00	30.35	36.50	42.80	49.35
4" ø	17,820.00	30.35	36.50	42.80	49.35

## APPENDIX C.

### HOW TO COMPUTE YOUR WATER BILL

Water meters are read monthly on scheduled dates. Individual meter readings are then encoded to their corresponding assigned account numbers. The amount of water consumed is derived by deducting the previous reading (*last month*) from the current reading.

#### EXAMPLE:

125 - Current month's reading  
104 - Current month's reading  
21 - Volume consumed  
(in cubic meters)

COMPUTATION TABLE			
	CUBIC	RATE	AMOUNT
<b>MINIMUM</b>	10		198.00
11-20	10	x24.30	243.00
21-30	10	x29.20	292.00
31-40	10	x34.25	342.50
41-up	1	x39.50	39.50
<b>TOTAL</b>	<b>41</b>		<b>1,115.00</b>

Your monthly bill is then computed based on our approved water rates according to the amount of water consumed. The result is then printed on your water bill as the amount due, along with your arrears (*any unpaid amount last month*) and other charges, if any. Other charges include balance on material cost, meter deposit, reconnection fees and additional billings. Whenever possible, all accounts are read within the billing period.

Your water bill will be given right after the meter reader reads the water meter because of the "**Read and Bill**" gadget that allows him to print after reading the current month's consumption. You have fifteen days from the date of your billing to pay (this appears in the due date column of your bill). Otherwise, your bill will be subjected to a 10% penalty.