



# ANNUAL REPORT 2016

For the year ended December 31, 2016

Butuan City  
**Water District**



Gov. Jose A. Rosales Ave., Butuan City  
Tel.No.: 342-3145

[www.bcwd.gov.ph](http://www.bcwd.gov.ph)

# 2016 Butuan City Water District Annual Report

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### MISSION

Butuan City Water District, a service-oriented entity, endeavors to preserve the environment, deliver quality service and satisfy its customers.

### VISION

A leader in the water and sanitation industry advancing integrated water resource management.



### CORE VALUES

C - Commitment  
L - Leadership  
I - Integrity  
E - Excellence  
N - Novelty (Innovation)  
T - Teamwork  
S - Safety



# Board of Directors



**DIR. CRISPIN L. YOUNG**  
Secretary  
Business Sector



**ATTY. ROLDAN L. TORRALBA**  
Chairperson  
Professional Sector



**DIR. CLAUDIO B. ESTACIO, M.D.**  
Vice Chairperson  
Socio-Civic Sector



**DIR. JUANITO A. LAO, Ph.D.**  
Treasurer  
Education Sector



**DIR. LEAH A. MENDOZA, CPA**  
Member  
Women Sector

## TO OUR **STAKEHOLDERS**

2016 was a much better year for Butuan City Water District (BCWD) as compared to 2015. BCWD breathed after it suffered from the tumultuous year 2015 which brought havoc to its operations due to the ill effects of Typhoon Seniang. Its operations went smoothly through the end of the year.

Programs, projects and activities were implemented successfully resulting to improved overall performance. In fact, BCWD passed the ISO 9001-2008 surveillance and awarded by the Government Quality Management Committee (GQMC) for having established Quality Management System (QMS) in conformity with the ISO 9001 standards and the applicable government quality management systems standard.

BCWD accumulated water sales, net of discounts, amounted to ₱301,960,243.27 which was ₱17,279,473.32 or 5% short of the projected water sales for CY 2016. One of the main factors that may caused this variance was that the projected average consumption per connection of 16.43 cubic meters (cu.m.) was not met. Average consumption per connection for the year was only 15.32 cu. m., or 1.11 cubic meters lower than the expected consumption.

However, lesser operating and maintenance expenditures incurred, reflecting a favorable variance of ₱38,532,569.41 or 12.95% reduction against budget of this year. The total operating and financial expenses for CY 2016 amounting to ₱259,007,755.67 was equivalent to 82% of the total revenues, leaving a net surplus of ₱58,019,441.21 or approximately 18%. Total accumulated assets was ₱1,382,748,581.60, with net increase of ₱9,761,416.57 or approximately .71% from last year's net assets.

All these happened because of the cooperation of every member of the BCWD family: from the Board of Directors to the Top Management, from the managers and supervisors to the employees. Of course, the renewed trust and confidence of the concessionaires really made wonders to BCWD, for without them, it could not have reached its goals and objectives for the year.

As such, we would like to express our heartfelt thanks to everyone in BCWD and the concessionaires.

  
**ENGR. ANSELMO L. SANG TIAN**  
General Manager

  
**ATTY. ROLDAN L. TORRALBA**  
Chairman

## 2016 **POLICIES**

The Board of Directors (BOD) passed significant policies in support of the Management's basic duties, internally and externally. The BOD also had done the following:

1. Successfully obtained financial support from the DENR under its National Greening Program (NGP) for reforestation of more than 200 hectares Taguibo River Watershed Forest Reserve.
2. Continuous execution of Memorandum of Agreement or Understanding with private persons or companies or institutions for the BCWD "Adopt-a-Forest Program" for the Taguibo River Watershed Forest Reserve.
3. For the activities that improve the well-being of BCWD Staff and Personnel.
4. For enhancement of information drive program like but not limited to Bisita Eskwela.

From the Regular Board meetings of the Board, resolutions were enacted or passed in relation to the BCWD activities.

### **Operation and Management**

In the usual course of business of the BCWD services, resolutions were enacted for the financial need and materials requirement of BCWD operation and management.

As part of the continuing improvement of management, the Board enacted the following resolution in relation to ISO 9001:2008 by which BCWD was accorded the International Standard on Quality Management and successfully received an ISO Certification.

- **RESOLUTION NO. 143-2016 "AUTHORIZING THE TRAVEL OF DIRECTOR CRISPIN L. YOUNG AND ENGR. ANSELMO L. SANG TIAN, GENERAL MANAGER, TO THE RECOGNITION CEREMONY WHICH WILL BE HELD AT THE LAND BANK OF THE PHILIPPINES (LBP) BUILDING, 10TH FLOOR LBP AUDITORIUM, MALATE, MANILA TO RECEIVE THE GQMC CERTIFICATE OF RECOGNITION AWARDED BY THE GOVERNMENT QUALITY MANAGEMENT COMMITTEE FOR HAVING ESTABLISHED QMS IN CONFORMITY WITH THE ISO 9001 STANDARDS AND THE APPLICABLE GOVERNMENT QUALITY MANAGEMENT SYSTEMS STANDARD ON NOVEMBER 9-10, 2016."**



Republic of the Philippines  
Government Quality Management Committee

awards this

## Certificate of Recognition

to

**Butuan City Water District**

for successfully establishing a

## Quality Management System Certified to ISO 9001:2008 Standards

in compliance with Executive Order No. 605. s. 2007.

Given this 10<sup>th</sup> day of November 2016

Land Bank of the Philippines Auditorium, Malate, Manila

*Benjamin E. Diokno*  
**Benjamin E. Diokno**

Secretary, Department of Budget and Management  
and Chair, GQMC

*Ramon M. Lopez*  
**Ramon M. Lopez**

Secretary, Department of Trade and Industry  
and Co-Chair, GQMC

*Ismael D. Sueno*  
**Ismael D. Sueno**

Secretary, Department of the Interior  
and Local Government and Member, GQMC

*Alberto A. Bernardo*  
**Alberto A. Bernardo**

Deputy Executive Secretary, Office of the President  
Internal Audit Office and Member, GQMC

*Antonio D. Kalaw*  
**Antonio D. Kalaw**

President, Development Academy of the Philippines  
and Member, GQMC

- ▶ RESOLUTION NO. 113-206 “APPROVING THE CREATION OF A SPECIAL PROJECT OFFICE FOR NON-REVENUE WATER REDUCTION UNDER THE OFFICE OF THE GENERAL MANAGER.”
- ▶ RESOLUTION NO. 122-2016 “APPROVING THE 2016 ANNUAL PROCUREMENT PLAN (APP) AS REVISED AND UPDATED DUE TO BUDGET RE-ALIGNMENT IN THE 3RD QUARTER OF 2016 IN KEEPING WITH RULE II, SECTION 7.2 OF THE REVISED IRR OF R.A. 9184.”
- ▶ RESOLUTION NO. 136-2016 “ACCEPTING THE DEED OF DONATION FOR A PARCEL OF LAND SITUATED AT BARANGAY DUMALAGAN, BUTUAN CITY DONATED BY MALAMBUON MULTI-PURPOSE COOPERATIVE INTENDED FOR WATER RESERVOIR IN BARANGAY DUMALAGAN, BUTUAN CITY AND FURTHER AUTHORIZING ENGR. ANSELMO L. SANG TIAN, GENERAL MANAGER, TO SIGN THE DEED OF DONATION IN BEHALF OF THE BUTUAN CITY WATER DISTRICT.”
- ▶ RESOLUTION NO. 149-2016 “APPROVING THE GENERAL FUND BUDGET FOR FISCAL YEAR 2017, FOR THE BUTUAN CITY WATER DISTRICT.”

### **Personnel Welfare**

Giving importance to human resources and welfare of BCWD staff and personnel, the Board passed and enacted the following resolutions:

- ▶ Resolution Approving The Grant And Release Of The Collective Negotiation Agreement (CNA) Incentives For The Butuan City Water District (BCWD) Permanent Employees, For The Fiscal Year 2015, Based on DBM Circular No. 2015-2.
- ▶ Resolution Approving The Abolition (Scrapped) and Creation (Build) of Plantilla Positions of the Butuan City Water District For Calendar Year 2016.
- ▶ Resolution Appointing Engr. Anselmo L. Sang Tian, As General Manager of The Butuan City Water District Effective January 11, 2016.
- ▶ Resolution Supporting The Bid For Candidacy Of Atty. Roldan L. Torralba, Chairperson, Board of Directors, Butuan City Water District, in The Election of The Regional Representation in The Philippine Association of Water Districts (PAWD) Board of Governors Representing Caraga Region Water Districts For The Year 2016 and 2017.
- ▶ Supplemental Resolution Indicating The Legal Basis For The Appoinment of Engr. Anselmo L. Sang Tian As General Manager of The Butuan City Water District, With The Term of Office Coterminous With The Appointing Board of Directors.
- ▶ Approving The Hiring of Additional One (1) Job Order Personnel For The Budget Division To Meet Timely Submission Of Monthly/Quarterly reports.
- ▶ Approving The Hiring of Additional One (1) Laboratory Aide and One (1) Water Sampler, For The Production And Distribution Department On Job Order Basis.
- ▶ Resolution Approving The Hiring Of Two (2) Job Order Personnel For Pump Operator And Electro-Mechanical Works, For The Production And Distribution Department (PDD), Butuan City Water District.

- ▶ Resolution Approving The Adoption And Implementation Of The First Tranche Compensation Adjustment For The 139 Permanent And Temporary Officers And Employees Of The Butuan City Water District Effective January 01, 2016, Pursuant To National Budget Circular No. 562 Dated February 24, 2016 Of The Department Of Budget And Management.
- ▶ Resolution Approving The Eleven (11) Plantilla Positions To Complement The Manpower Requirement Essential To The Operations Of The Butuan City Water District.
- ▶ Resolution Approving The Adoption And Implementation Of The Butuan City Water District Training Development Plan.
- ▶ Resolution Approving The Hiring Of Job Order Personnel To Be Assigned In The Different Offices/Departments To Perform Specific Functions So As To Support The Operating Services Of The Butuan City Water District For The Contract Period July 1, 2016 To December 31, 2016.
- ▶ Resolution Approving The Filling Up Of Six (6) Out Of Nine (9) Engineers A Plantilla Positions, To Complement The Manpower Requirement To Maintain The Operating Efficiency And Services OF The Butuan City Water District.
- ▶ Resolution Approving The Grant/Release Of 2016 Loyalty Cash Award To Eleven (11) Qualified Employees Of The Butuan City Water District.
- ▶ Resolution Approving The Grant/Release Of Step Increments Covering The Period From January 1 To December 31, 2016 To Qualified Forty-Three (43) Employees Of The Butuan City Water District.
- ▶ Resolution Approving The Filling Up Of Eight (8) Plantilla Positions Effective August 1, 2016, As Recommended By The General Manager, Per Endorsement By The Butuan City Water District Personnel Selection Board (BCWD-PSB).
- ▶ Resolution Approving The Filling Up Of Ten (10) Non-Plantilla Positions Effective August 1, 2016, As Recommended By The Butuan City Water District Personnel Selection Board (BCWD-PSB).
- ▶ Resolution Approving The Filling Up Of Opened Two (2) Plantilla Positions Effective September 1, 2016, As Recommended By The General Manager, Per Endorsement By The Butuan City Water District Personnel Selection Board (BCWD-PSB).
- ▶ Resolution Approving The Hiring Of Eighteen (18) Job Orders To Perform Specific Functions To Support The Operating Services Of The Butuan City Water District.
- ▶ Resolution Approving The Filling Up Of Legal Researcher III (Item No. 7, Sg 18) Plantilla Position As Endorsed By The BCWD Personnel Selection Board (BCWD-PSB).
- ▶ Resolution Approving The Memorandum Of Agreement Between Butuan City Water District And Social Security System (SSS) And Authorizing Engr. Anselmo L. Sang Tian, General Manager, To Sign The Same, For And On Behalf Of The District.
- ▶ Various Resolutions approving personnel travels & trainings as continuing education.
- ▶ Various Resolutions approving personnel benefits.

## Community

- ▶ Resolution Approving The Draft Memorandum of Agreement Between Butuan City Water District And Development Bank of the Philippines (DBP) Re: Waterbill Collection Through DBP Automatic Teller Machine And Further Authorizing Engr. Anselmo L. Sang Tian, General Manager, Butuan City Water District, To Sign The Same.
- ▶ Resolution Designating CNC Travel And Tours As Collection Center Of The Butuan City Water District And Further Authorizing Engr. Anselmo L. Sang Tian, General Manager, To Sign The Covering Memorandum Of Agreement For And On Behalf Of The District.”

## Environment

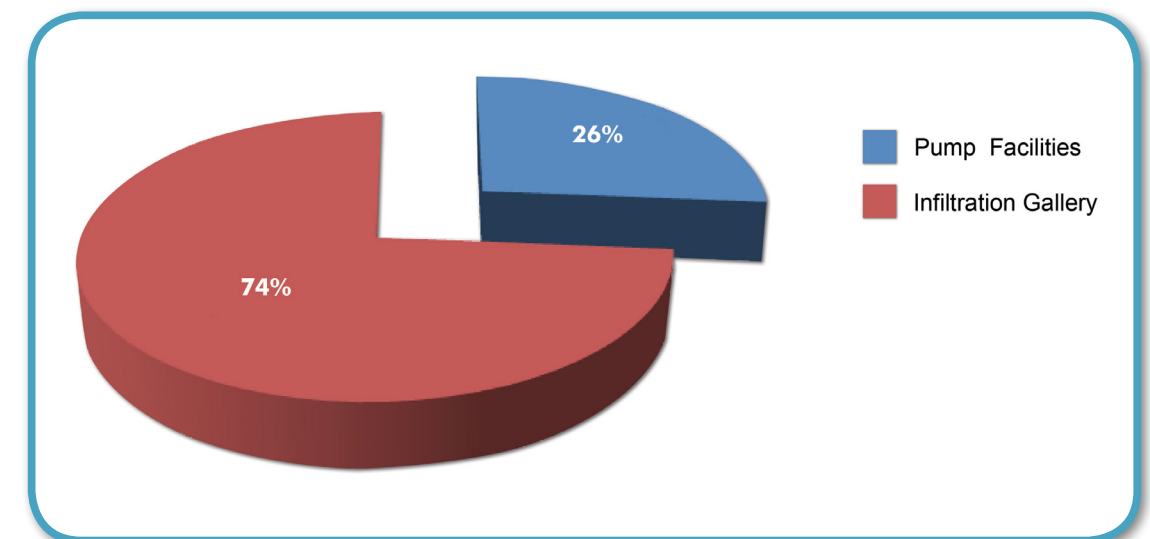
- ▶ Resolution Authorizing Engr. Anselmo L. Sang Tian, General Manager, Butuan City Water District To Enter Into And Sign In Behalf Of The Butuan City Water District (BCWD) The Memorandum Of Agreement (MOA) With The Department Of Public Works And Highways (DPWH) Regional Office XIII, Department Of Environment And Natural Resources (DENR) XIII And National Commission Of Indigenous People (NCIP) XIII For The Ninety-Six (96) Hectares Reforestation Project In The Taguibo Watershed To Be Funded By DPWH.
- ▶ Resolution Authorizing Engr. Anselmo L. Sang Tian, General Manager, Butuan City Water District To Enter Into And Sign The Memorandum Of Agreement (MOA) With Luntiaw Mindanao Inc., For The Construction Of Water Supply System At Sitio Mahayahay, Barangay Anticala, Butuan City, For And On Behalf Of The Butuan City Water District.
- ▶ Resolution Authorizing The General Manager, Engr. Anselmo L. Sang Tian, To Enter Into And Sign In Behalf Of The Butuan City Water District (BCWD) A Memorandum Of Agreement (MOA) With The Philippine Institute Of Civil Engineers (PICE) Agusan Del Norte Chapter For The One (1) Hectare Adopt-A-Forest Program In The Taguibo Watershed.
- ▶ Resolution Authorizing The General Manager, Engr. Anselmo L. Sang Tian, To Enter Into And Sign In Behalf Of The Butuan City Water District (BCWD) A Memorandum Of Agreement (MOA) With Mrs. Josefina U. Chan For The Five (5) Hectares Adopt-A-Forest Program In The Taguibo Watershed.
- ▶ Resolution Authorizing The General Manager, Engr. Anselmo L. Sang Tian, To Enter Into And Sign In Behalf Of The Butuan City Water District (BCWD) A Memorandum Of Agreement (MOA) With The Officers & Members Of Filipino Chinese Lourdes Catholic Community For The One (1) Hectare Adopt-A-Forest Program In The Taguibo Watershed.

# Products and SERVICES

## Water Production

The total volume of water supplied in the system for CY 2016 is 10,116,487m<sup>3</sup>. This consisted of 7,454,309 m<sup>3</sup> surface water (Infiltration Gallery) and 2,662,178 m<sup>3</sup> groundwater (Pumping Facilities).

### 2016 Percentage of share of Ground Water and Surface Water Sources



## Ground Water

There are five (5) active Pumping Stations / deep wells (PS/DW) all located at the eastern side of the Agusan River. These Pumping Stations are operated to augment the water supply during low pressure in the system and during peak hours when the water demand is high and the ideal pressure at Pump Station No. 1 is not attained with only the supply coming from the surface water source.

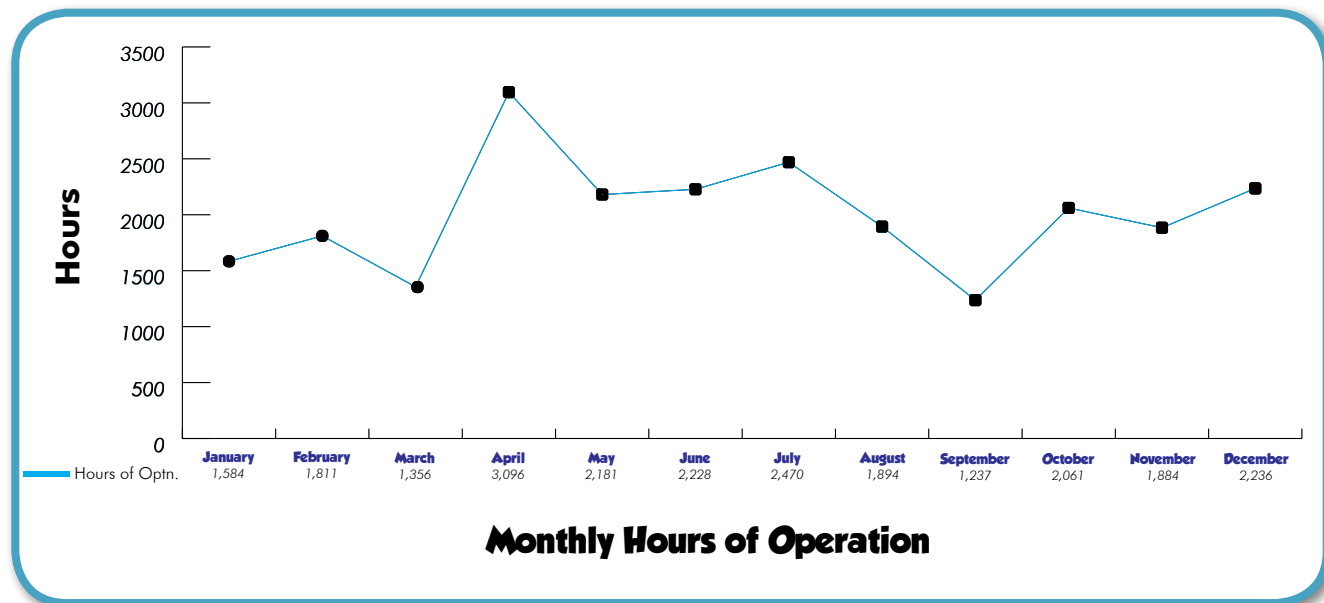
The water derived from the operation of the Pumping Stations is directly feed into the transmission/distribution lines after determination that it passes the turbidity requirement of maximum of 5 NTU.

The Total production capacity for the five (5) PS/DW is 552 m<sup>3</sup>/hr. In 2016, the total volume contributed by these five (5) Pumping Stations/deepwells was 2,662,178 m<sup>3</sup> representing 26% of the total production of 10,116,487m<sup>3</sup>.

For CY 2016, the system enjoyed a normal operation of only 6,091 hours or 69.34% of the total hours for the year of 8,784 hours. For the remaining 2,693 hours or 30.66% of the time, the system experienced low pressure at Pump Station No. 1 resulting to no water condition at the end points of the catered service area. The 2,693 hours translated to an average of almost 10 days in a month of low water to no water condition.

Every Pumping Station has a standby generator set to ensure a continuous water supply during power failure. The combine generator set hours of operation is 252.31.

### Total Pumping Hours Operation of Five (5) Pumping Facilities



### Hours of Operation at Pump Station No. 1

CY 2016	# of hours of interruption (69psi below)	# of hours in a month	% hours in good operation
January	84.00	744	88.71
February	338.00	696	51.44
March	125.00	744	83.20
April	363.00	720	49.58
May	160.00	744	78.49
June	319.00	720	55.69
July	339.00	744	54.44
August	106.00	744	85.75
September	126.00	720	82.50
October	258.00	744	65.32
November	251.00	720	65.14
December	224.00	744	69.89
<b>Total</b>	<b>2,693 .00</b>	<b>8,784</b>	

### Surface Water

The surface water from the run-off in the Taguibo River is collected through an Infiltration Gallery. An infiltration Gallery is a horizontal perforated pipe laid below the river bed and the perforated pipe is a filter media made up of different sizes of sand, gravel and stone to prevent the entry of foreign material that affects the water quality. This is to ensure that unfiltered water will not enter the transmission line and also serve as primary filtering. The Infiltration Gallery can collect up to 1000 liter per second (lps). The collected water is then conveyed through the transmission pipe going to Filtration Plant where additional filtering process is done. After the water is filtered using the Automatic Brush Filter (ABF) and Automatic Micro Fiber Filter (AMF), disinfection followed using liquid chlorine. Water that will be distributed is monitored as to its quality to ensure compliance with PNSDW. The total production for the year 2016 from the Infiltration Gallery was 7,454,309m<sup>3</sup>.

To ensure that the volume extracted from the river will not surpass the limit stated in the permit issued by the National Water Resources Board (NWRB) of 1,000 lps, two (2) sampling stations were established to monitor the volume of water extracted, one in the upstream of the TASC dam and another at the retaining wall near manhole no. 4 of the I.G. The frequency of monitoring was done once a week.

In the month of April, the El Niño condition was felt in the region and the volume of water extracted from the Taguibo River reduced significantly.



**WATER SUPPLY STATUS MONITORING**  
**STATUS OF WATER SOURCES**

**A. Surface Water**

**Location:** Taguibo River, Sitio Iyao, Barangay Anticala, Butuan City  
**Method:** Stream Flow Monitoring

	January, Q m <sup>3</sup> /hr					February, Q m <sup>3</sup> /hr					March, Q m <sup>3</sup> /hr					April, Q m <sup>3</sup> /hr					
	Upstream of IG	Downstream of IG	Q Absorbed Qu-Qd (a)	Processed at Filtration Plant (b)	Lost Q/seepage (a-b)	Upstream of IG	Downstream of IG	Q Absorbed Qu-Qd (a)	Processed at Filtration Plant (b)	Lost Q/seepage (a-b)	Upstream of IG	Downstream of IG	Q Absorbed Qu-Qd (a)	Processed at Filtration Plant (b)	Lost Q/seepage (a-b)	Upstream of IG	Downstream of IG	Q Absorbed Qu-Qd (a)	Processed at Filtration Plant (b)	Lost Q/seepage (a-b)	
1/8/2016	4,411.62	2,342.27	2,069.35	1,608.46	460.89																
1/15/2016	4,204.80	2,019.20	2,185.60	1,677.08	508.52																
1/25/2016	12,096.00	7,939.00	4,166.20	2,007.13	2,149.07																
2/4/2016						8,381.34	5,028.80	3,352.54	1,758.58	1,593.96											
2/12/2016						6,283.01	3,769.81	2,513.20	1,277.83	1,235.37											
2/19/2016						4,775.62	2,387.81	2,387.81	1,130.26	1,257.55											
2/26/2016						4,331.27	2,092.50	2,238.77	1,825.38	413.39											
3/4/2016											3,547.26	1,950.98	1,596.28	1,231.50	364.78						
3/10/2016											3,320.57	1,874.34	1,446.23	1,324.04	122.19						
3/17/2016											3,081.60	1,760.40	1,321.20	1,145.00	176.20						
3/21/2016											2,862.00	1,364.40	1,497.60	1,184.17	313.43						
3/28/2016											2,379.00	712.80	1,663.20	990.17	676.03						
4/8/2016																2,073.60	472.50	1,601.10	569.50	1,031.60	
4/12/2016																2,973.60	1,681.20	1,292.40	554.00	738.40	
4/14/2016																1,965.60	450.90	1,514.70	528.50	986.20	
<b>Average</b>	<b>6,904.14</b>	<b>4,100.42</b>	<b>2,803.72</b>	<b>1,764.22</b>	<b>1,039.49</b>	<b>5,942.81</b>	<b>3,319.73</b>	<b>2,623.08</b>	<b>1,498.01</b>	<b>1,125.06</b>	<b>3,037.49</b>	<b>1,532.58</b>	<b>1,504.90</b>	<b>1,174.98</b>	<b>329.92</b>	<b>2,337.60</b>	<b>868.20</b>	<b>1,469.40</b>	<b>550.67</b>	<b>918.73</b>	

**Water Quality**

BCWD regularly conducts monitoring activities of the water from source to distribution lines to water meter clusters to ensure that the water produced and distributed to concessionaires are compliant with the standards set by the Philippine National Standard for Drinking Water (PNSDW). Monitoring activities includes chlorine residual testing and collection of samples including analysis for physical and chemical parameters, and bacteriological presence.



**Flushing and Valve Exercise**

Water main flushing is a routine operation that will result in a clean and maintained water system. During this activity, water is forced through pipes at high velocity and systematically flushed out of the fire hydrants and blow-offs to remove accumulated mineral sediment until the water is clear.

As part of BCWD's core mission to provide our community with a reliable, safe drinking water supply regular flushing activities are conducted to improve water quality, restore water pressure and protect pipe integrity. Part of the program involves testing the large main-line valves and fire hydrants to ensure that they are operating properly. As of December 2016, BCWD maintained approximately 129 hydrants and 370 blow offs all with gate valves.

To minimize impact to water service, this maintenance is scheduled during night time (8:00pm to 4:00am) and is conducted by two (2) flushing personnel.





## Monitoring of Water Quality in Terms of Physical and Chemical Parameters

The result of the disinfection at the different water sources and support facilities are being checked through the collection of water samples. These samples are then analyzed at the BCWD laboratory.



## Physical and Chemical Analyses

The chemical and physical quality of water may affect the acceptability of the consumers. Problems resulting to taste, odor, turbidity, color may originate in new water sources, treatment processes, in the distribution system and plumbing systems of the consumers. Acceptability aspects of drinking water quality are set to satisfy the need of consumers for a COLORLESS, ODORLESS and TASTELESS drinking water.

BCWD water supply mainly comes from the Taguibo River. Being a surface-water, it is considered vulnerable to contamination from agricultural, mining, water run-off, industrial, and domestic waste water discharges.

The Philippine National Standards for Drinking Water sets the Minimum Frequency of Sampling for Drinking-Water Supply Systems for Physical and Chemical Analysis.

Source and mode of Supply	Minimum Frequency
a. Level I b. Level II c. Level III d. Emergency Supplies of Drinking Water	Once a year
e. Water Refilling Stations f. Water Vending Machines	Twice a year

BCWD belongs to Level III water supply system which is required a minimum of once a year sampling frequency for each water source. However, as an assurance for the quality of the water sources being tapped, the BCWD Laboratory closely monitored the water sources monthly for the (1) Taguibo river, before it enters the Infiltration Gallery; (2) Raw water- the water it transmitted after the Infiltration Gallery before it passes the Filtration Plant; (3) the Product water, as a result after passing through ABF and 2microns AMF; and (4) the Mixed water being a mixture of product water and the raw water.

For the five deep well sources which serve as a back-up supply for water source, two of them required a monthly monitoring by the Multi-partite Monitoring Team, the Pump Stations (PS) 17 & 14. The rest of the pumping stations, PS Nos. 1, 3 and 15, and the support facilities such as the concrete and steel tanks/reservoirs, Physical and Chemical tests were conducted twice a year. A total of six (6) water samples from the sources were collected and submitted to analysis, monthly.

Below is the tabulated monthly collection and analyses of water samples for Physical and Chemical Analyses.

## Number of samples taken and analyzed for Physical and Chemical Analyses for the whole year

No. of samples	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Collected Monthly	6	6	6	6	0	6	7	6	6	7	6	6	
Analyzed Monthly	6	6	6	6	0	6	7	6	6	7	6	6	
Bi-annual monitoring						12					12		24
Send-out for annual monitoring for heavy metals pesticides and benzene					6								6
Analyzed Outside / Client samples	6	22	15	0	0	1	14	27	13	3	31	18	150

No water sample was collected and analyzed in the month of June and no samples were received from outside client in the months of April and June since the Sr. Chemist was on-leave for two months. Additional one sample was added for monitoring in the months of July and October in response to the MMT suggestion that the backwash water from the filter be monitored.

In order to comply with the DOH Administrative Order 2007-2012, the tests should include the priority parameters of which heavy metals, benzene and pesticides were included and for which the BCWD Laboratory was not yet capable of handling the analysis due to lack of equipment. Thus, BCWD sent out water samples for testing to the other DOH accredited Laboratories.

The BCWD Water Testing Laboratory is a duly DOH Accredited Laboratory for Physical, Chemical and Bacteriological Analyses, thus it extends its laboratory services to neighboring Water Districts, LGUs, Refilling Stations, Mining companies and other private entities who voluntarily avail of the services for costs.

For the year 2016, a total of 150 samples from outside sources for physical and chemical analyses were received and analyzed.

## Bacteriological Analysis

In accordance with the PNSDW 2007's *Minimum Frequency of Sampling for Drinking-Water Supply Systems for Microbiological Examination* for a level III water supply system serving more than 100,000 population, the minimum sampling points for Bacteriological Analysis is calculated as twenty samples plus one sample per 10,000 of the population. To get the total population served by the utility, number of service connections is multiplied with the number of persons per connection.

### Minimum Frequency of sampling for Drinking-Water Supply Systems for Microbiological Examination

Source and Mode of Supply	Population Serve	Minimum Frequency of Sampling
a. Level I	90 - 150	Once in three (3) months
b. Level II	600	Once in three (2) months
c. Level III	Less than 5,000	1 sample monthly
	5,000 - 100,000	1 sample per 5,000 population monthly
	more than 100,000	20 samples and additional one (1) sample per 10,000 population monthly

By the end of December 2015, there were 41,024 service connections. This number multiplied with the average number of individuals per service connection which is seven (7) will result to 287,186 served population. Following of PNSDW 2007, a total of 39 minimum samples is required for bacteriological analysis every month.

Instead of the required 39 sampling points, BCWD had established 56 sampling points for Bacteriological Analysis.

As of December 2016, BCWD concessionaires grew to 43,524 for an equivalent population of 304,668.

### Number of samples taken and analyzed for Bacteriological Analysis for the whole year

No. of samples	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Collected Monthly	56	56	56	56	56	56	56	56	56	56	56	56	672
Analyzed Monthly	56	56	56	56	56	56	56	56	56	56	56	56	672
Resample	0	0	0	7	0	3	0	0	0	0	0	0	7
Analyzed Outside/Client samples	8	8	7	10	7	13	8	13	10	7	8	8	107
Analyzed Outside /Client samples	6	22	15	0	0	1	14	27	13	3	31	18	150

For the month of April and June, resampling was conducted as a preventive action for samples found to be positive with coliform bacteria. Before every resampling, flushing of pipelines was conducted.

### Frequency of Sampling and Resampling

The minimum number of samples to be collected and examined periodically must be based on the mode of source of water supply and the number of population served as required under the PNSDW 2007. However, frequency of sampling should also take into account the past record yielding unsatisfactory results. Resampling after a conduct of flushing is also made in areas where results are found unsatisfactory until confirmation that the water running through the pipes is free from non-conforming matter.

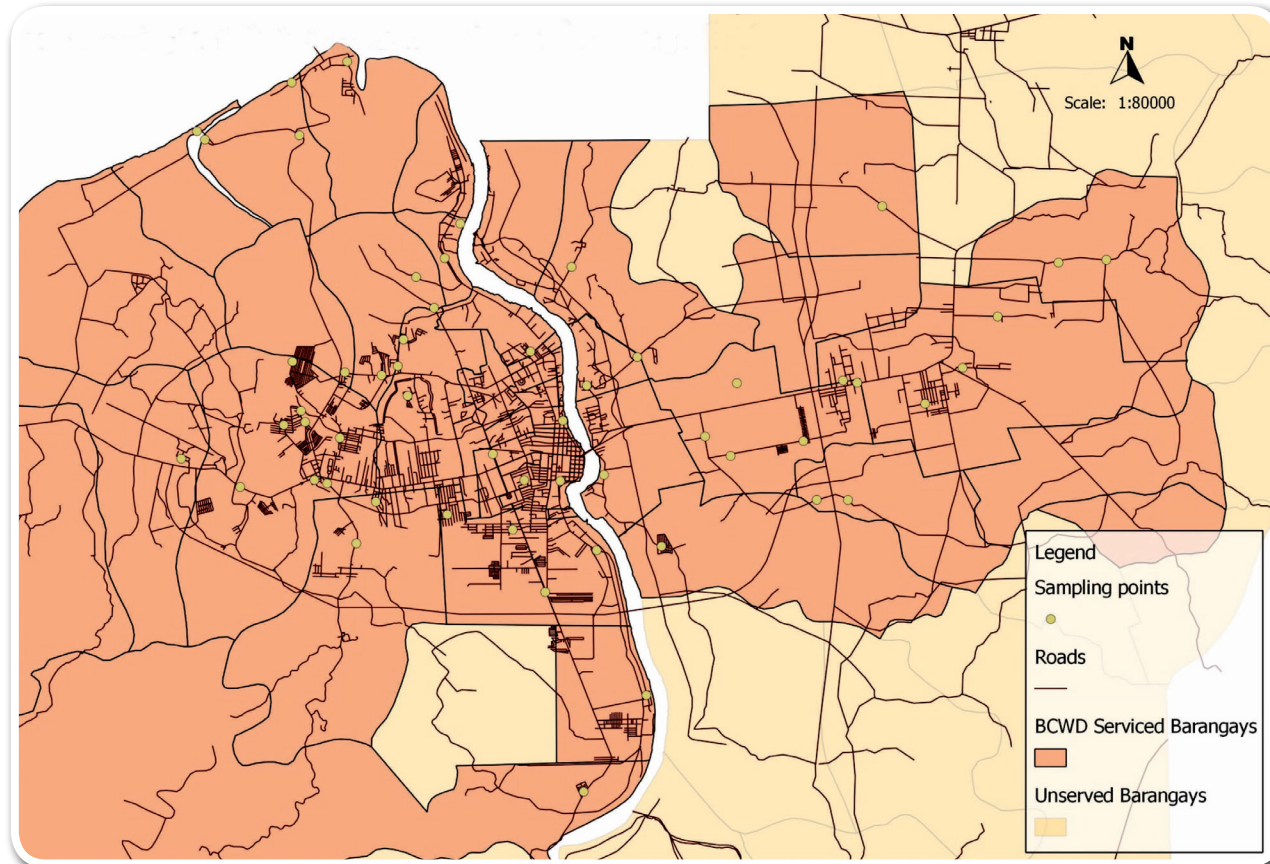
### Chlorine Residual Monitoring

Regular monitoring of chlorine residual was conducted at various points in the water system to ensure that the water running was within the approved level of 0.3 (minimum) to 1.5 (maximum) mg/L. There were only a maximum of 2 months where free chlorine fell out of the range with a maximum of 1 out of 86 samples for Transmission lines and 5 out of 165 samples for Distribution lines. For the succeeding months thereafter, results were within the acceptable range set by the PNSDW.

### Number of samples taken and analyzed for Chlorine Residual Monitoring for the whole year

No. of samples	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Transmission line	84	84	84	84	84	84	84	84	84	84	84	84	1,008
Failed/ <0.3ppm	0	0	0	0	1	0	0	0	0	0	0	0	1
Distribution line	160	160	160	160	160	160	160	160	160	160	160	160	1,920
Failed/ <0.3ppm	0	0	0	2	5	0	0	0	0	0	0	0	7
Analyzed Outside /Client samples	6	22	15	0	0	1	14	27	13	3	31	18	150

## The Map Showing the Relative Location of the BCWD sampling Points



### Disinfectants

For the year 2016, BCWD consumed a total of 26,885.90 kg of chlorine gas and 642.25 kg of powder chlorine used for treating the water prior to distribution to ensure that the water supplied to the concessionaires was safe for drinking.

#### 1. Chlorine gas consumption

##### Amount of chlorine gas (in kgs.) used for the whole year

Gas Chlorine	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Filtration Plant	1,932	1,606	1,867.3	1,866.7	1,977	1,733	1,466.66	1,873.0	1,926.60	2,074.84	867.83	1,733.67	20,924.60
PS# 1	54.40	122.40	136.0	136.0	136.0	190.40	149.60	127.40	91.60	190.40	138.60	215.0	1,687.80
PS# 14	149.60	204.0	176.80	244.80	122.40	163.0	207.0	146.80	95.20	136.0	205.20	230.0	2,080.80
PS# 15	163.20	176.80	136.0	217.60	149.60	176.80	137.10	117.60	156.40	272.0	203.60	286.0	2,192.70
Total	2,299.2	2,109.2	2,316.1	2,465.1	2,405	2,263.2	1,960.36	2,264.80	2,269.8	2,673.24	1,415.23	2,464.67	26,885.90

##### Amount of powdered chlorine (in kgs.) used for the whole year

Powder Chlorine	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Emily, kg	18.0	12.0	8.0	14.0	13.0	6.0	9.0	12.0	8.0	9.0	6.0	6.0	121.0
Emenvil, kg	19.0	4.0	12.0	11.0	8.0	8.0	8.0	7.0	10.0	5.0	16.0	7.0	115.0
Km. 6, kg	11.0	5.0	2.0	5.0	2.0	4.0	4.0	4.0	5.0	8.0	6.0	6.0	62
Bliss, kg	15.0	4.0	9.0	10.0	11.0	9.0		12.0	9.0	10.0	9.0		98
Resettlement, kg		4.0	9.0	8.0	16.0	9.0	4.0	4.0		5.0	10.0	14.0	83
Pinamanculan, kg													
<b>Sub-Total</b>	<b>63.0</b>	<b>29.0</b>	<b>40.0</b>	<b>48.0</b>	<b>50.0</b>	<b>36.0</b>	<b>25.0</b>	<b>39.0</b>	<b>32.0</b>	<b>37.0</b>	<b>47</b>	<b>33</b>	<b>479.0</b>

#### 2. Chlorine powder

Facilities	1 <sup>st</sup> Semester	Powder Chlorine Used, kg.	2 <sup>nd</sup> Semester	Powder Chlorine Used, kg.
Emily	March 22, 2016	18	Oct. 26, 2016	18
Emenvil				
Km. 6	April 8, 2016	36	Oct. 20, 2016	36
Bliss				
Resettlement			Nov. 9, 2017	36
Pinamanculan				
Pump Station 1				
Pump Station 14			Oct. 24, 2016	2
Pump Station 15			Oct. 18, 2016	2
Pump Station 3				
Pump Station 17				
<b>Sub-Total</b>		<b>54</b>		<b>94</b>

# Pipe Line and **Appurtances** Maintenance

There were 31,940 Total Acted Orders (TAO). 22,819 orders or 71.44% of the TAO comprised the actual disconnected orders while 9,121 orders or 28.56% of the total accomplishment (TAO) included those accounts that were halted/hold for implementation; payments were already made by the concerned concessionaires and those accounts that were remarked for installation and/or replacement of damaged angle valves.

As of end of 2016, there were 37 disconnection orders that remained un-acted on the last day of disconnection or on December 28, 2016. Those un-acted or backlog orders were prioritized for disconnection in January 2017.

On the other hand, the actual disconnected service connections for 2016 (22,819) were lower than 2015 (23,743) by 3.89% or 924 disconnected service connections.

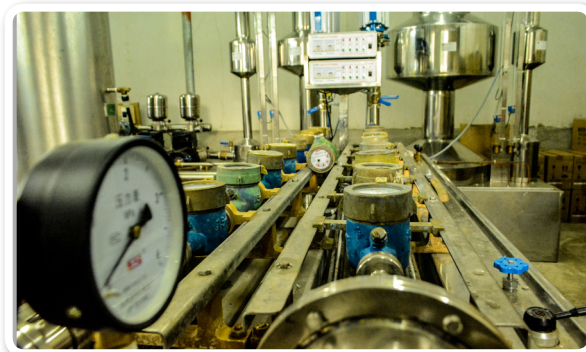
Transmissions and distribution lines maintenance included repair of Leaking Main and Distribution Lines. Total Acted Orders reached to 601 orders since there were 34 un-acted orders in December 2015 that were completed in January 2016.

As of December 2016, a total of 362 Blow-offs and 129 Fire Hydrants were maintained; painted and properly tagged/labelled with numbers.

## Meter Accuracy

Based on study, water meters have a maximum life of five years considering accuracy of reading. Hence, ensuring the reading accuracy of BCWD meters, the Water Meter Maintenance Program (WMMP) was implemented. The program was designed to ensure that delivered water is properly accounted by replacing old water meters, aged 5 years and up, with new ones.

There were 8,279 water meters replaced for CY 2016. 2,679 service connections (1<sup>st</sup> Semester) and 5,600 service connections (2<sup>nd</sup> Semester). During the 1<sup>st</sup> Semester of the year, the remaining water meters installed in 2010 were prioritized for replacement. The implementation was suspended due to non-availability of water meters by March 2016. The replacement of water meters resumed on April 18, 2016. However, in the 2<sup>nd</sup> Semester of the year, all water meters installed in 2011 were the top priority of the team. Thus, all water meters installed in 2011 were replaced.



## ACTIVE CONNECTIONS, POPULATION SERVED AND AVERAGE CONSUMPTION

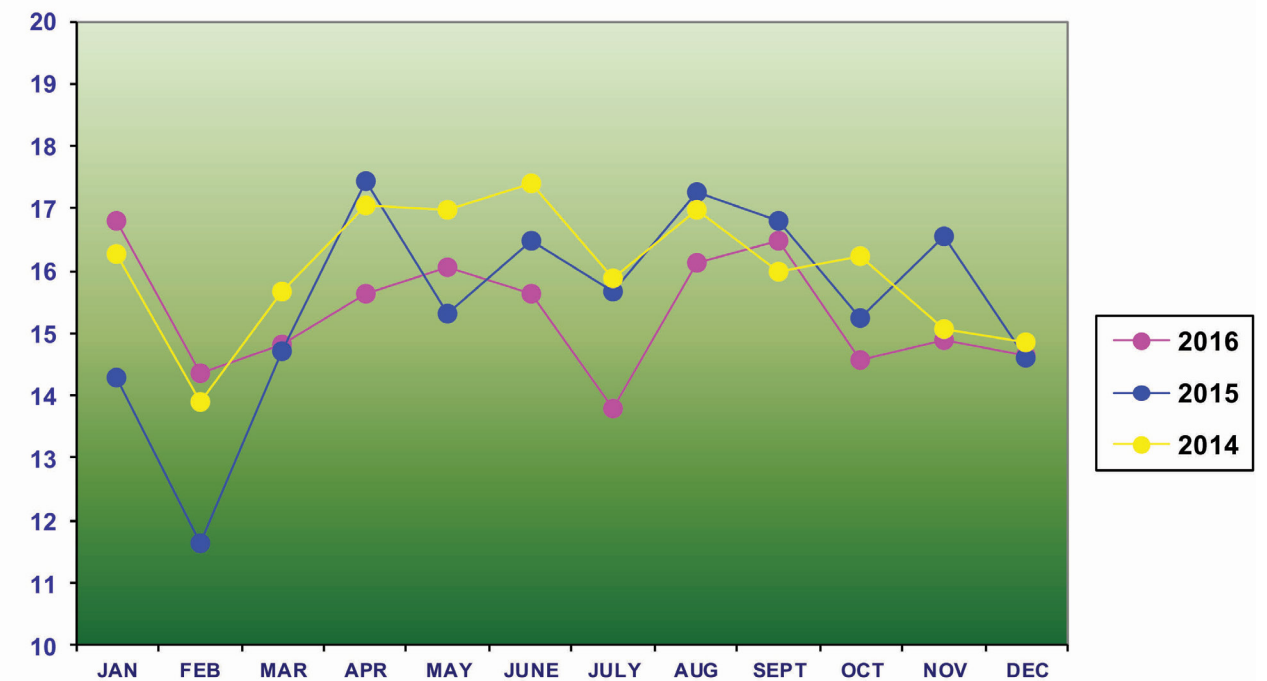
From the projection of 42,571, active/metered connections ending December 31, 2016 reached to 43,524, with a variance of 953 connections. The difference was attributed to increase of new service connections.

In 2016, we were able to serve additional 2,887 new connections coming from 55 barangays. Barangay Libertad, Barangay Villa Kananga and Barangay San Vicente got the most numbered new connections since these are the areas where most of the new housing projects/ subdivisions are situated.

Population served with 43,524 active connections was estimated at 304,668 individuals. Out of the 43,524 active connections, 742 were senior citizens who enjoyed the 5% discount on their water consumption not exceeding 30 cu.m. per month with a total amount of Php145,118.23. This was 36% higher than 2015 which resulted from removal of Barangay Certification as a requirement for the application and renewal of Senior Citizen Discount.

Average monthly consumption per connection in 2016 was 15.32 cubic meter, 0.18 cu.m. lower compared to 2015. This significant decrease was brought by service interruptions due to leak repair in various areas and shut-off of the Infiltration Gallery which resulted to low water pressure.

**Average Monthly Consumption per Connection**

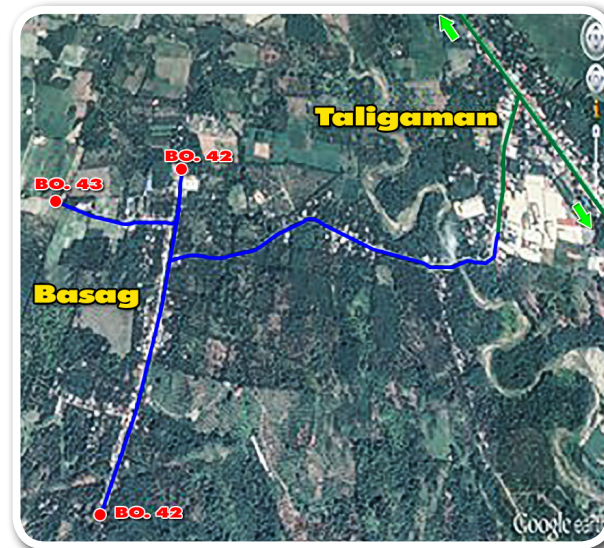


# Infrastructure Development

This year, BCWD continued to implement projects involving upgrading of lines, expansion of lines and replacement of lines like those upgrading and expansion of distribution lines in service areas such as Brgy. Basag, Brgy. Tiniwisan, Sunrise Brgy. Ampayon, Buod to Purok 6 Kalubihan Pinamanculan, Brgy. Bading, Brgy. Taguibo, Brgy. Diego Silang from R. Calo to McDonald Bldg., Narra Road New Society Village, and Silad Mahogany. These projects were in line with the BCWD's commitment to provide potable water to every concessionaire's taps.

There were also projects in 2016 that were carried over to 2017 for their completion. These include Diversion Road – Camella (upgrading of line)/ JETTI – Brgy. Imadejas (Expansion of Line), Sta. Lucia, Brgy. Mahogany (upgrading of lines), Brgy. Basag (expansion line), Ampayon-Antongalon (replacement of lines), Brgy. Libertad (expansion of line), Brgy. Pigdaulan (expansion of line), and Brgy. Pagatpatan (upgrading of lines).

## Brgy. Basag Total Length: 3,096.0 l.m.



**Name of Project:**  
Expansion of Lines  
(Taligaman to Basag)

**Project Location:**  
Brgy. Basag, Butuan City

**Project Appropriation:**  
₱ 1,943,972.12

**Status:** 110 mm (4") Ø

**Size:** Ready for Commissioning

**Material:** uPVC Pipe

Existing 110mm (4") Ø uPVC Pipe

Newly Installed Water Pipe Line



## Diversion-Camella, Brgy. Villa Kananga Total Length: 660.0 l.m.



**Name of Project:**  
Upgrading of Lines  
(Diversion to Camella)

**Project Location:**  
Brgy. Villa Kananga, Butuan City

**Project Appropriation:**  
₱ 1,902,855.62

**Status:** Ready for Commissioning

**Size:** 225 mm (8") Ø

**Material:** uPVC Pipe

Existing 225mm (8") Ø uPVC Pipe

Newly Installed 225mm (8") Ø uPVC Pipe Line

Existing 150mm (6") Ø uPVC Pipe

Newly Installed 150mm (6") Ø uPVC Pipe

## Beside JETTI Gas Station, Brgy. Imadejas Total Length: 60.0 l.m.



**Name of Project:**  
Upgrading of Lines  
(Beside JETTI Gas Station)

**Project Location:**  
Brgy. Imadejas, Butuan City

**Project Appropriation:**  
₱ 249,652.80

**Status:** Ready for Commissioning

**Size:** 225 mm (8") Ø

**Material:** uPVC Pipe

Existing 300mm (12") Ø HDPE Pipe

Existing 110mm (4") Ø uPVC Pipe

Newly Installed 110mm (4") Ø uPVC Pipe

**Brgy. Pagatpatan**  
Total Length: 3,090.0 l.m.



**Name of Project:**  
Upgrading of Lines  
(Portion of Sigla Village)

**Project Location:**  
Brgy. Pagatpatan, Butuan City

**Project Appropriation:**  
₱ 2,500,000.00

**Status:** For Implementation

**Size:** 110 mm (4") Ø

**Material:** uPVC Pipe

- Existing 225mm (8") Ø uPVC Pipe
- Proposed 110mm (4") Ø uPVC Pipe

**Sta. Lucia Mahogany**  
Total Length: 3,768.0 l.m.



**Name of Project:**  
Upgrading of Lines  
(Pk. 5 Silad to Pk. 6)

**Project Location:**  
Pk. 5 & 6 Sta. Lucia, Mahogany, Butuan City

**Project Appropriation:**  
₱ 3,000,000.00

**Status:** For Implementation

**Size:** 110 mm (4") Ø

**Material:** uPVC Pipe

- Existing 110mm (4") Ø uPVC Pipe
- Proposed 110mm (4") Ø uPVC Pipe

**PK. 5 and 6 Pigdaulan**  
Total Length: 3,700.0 l.m.



**Name of Project:**  
Expansion Lines

**Project Location:**  
Pk. 5 and 6 Brgy. Pigdaulan, Butuan City

**Project Appropriation:**  
₱ 2,500,000.00

**Status:** For Implementation

**Size:** 110 mm (4") Ø

**Material:** uPVC Pipe

- Existing 110mm (4") Ø uPVC Pipe
- Proposed 110mm (4") Ø uPVC Pipe

**Pk 6 and 7 Libertad**  
Total Length: 5,100.0 l.m.



**Name of Project:**  
Upgrading of Line

**Project Location:**  
Pk. 6 and 7 Brgy. Libertad, Butuan City

**Project Appropriation:**  
₱ 3,000,000.00

**Status:** For Implementation

**Size:** 110 mm (4") Ø

**Material:** uPVC Pipe

- Existing 225mm (8") Ø uPVC Pipe
- Proposed 110mm (4") Ø uPVC Pipe

### Replacement of 225mm to 260mmØ uPVC Pipe

Total Length: 2,592.0 l.m.



- Name of Project:**  
Replacement of Lines
- Project Location:**  
Brgy. Ampayon to Brgy. Taligaman,  
Butuan City
- Project Appropriation:**  
₱ 7,746,326.38
- Status:** For Implementation
- Size:** 260 mm (10") Ø
- Material:** uPVC Pipe
- Existing 900mm Steel Pipe
- Proposed 260mm (10") Ø uPVC Pipe

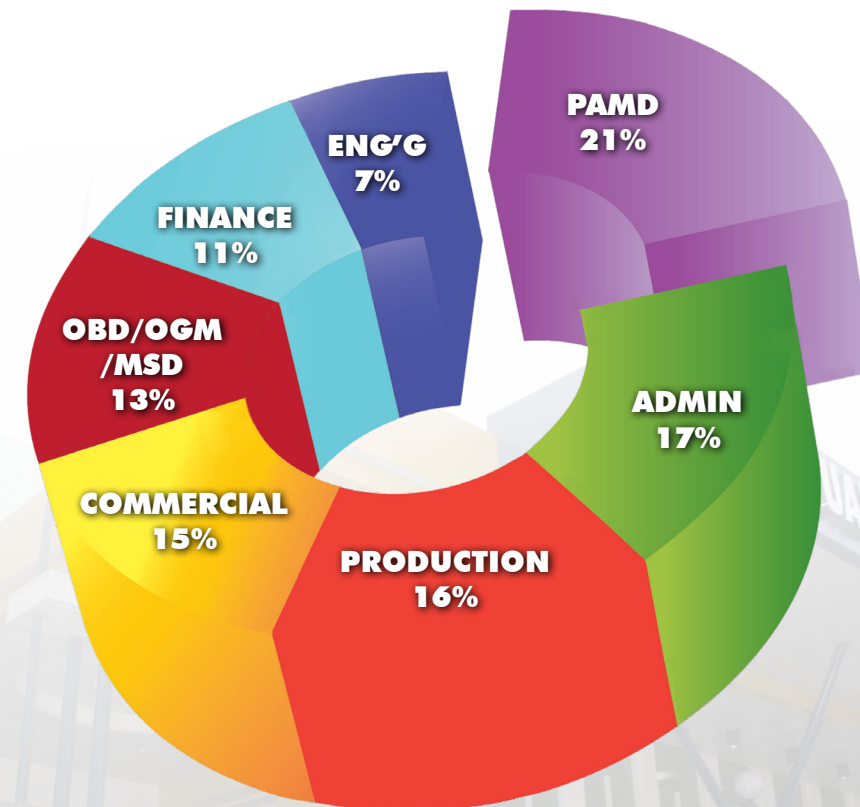
## Human Resource **Development**

### Number & Distribution of Personnel

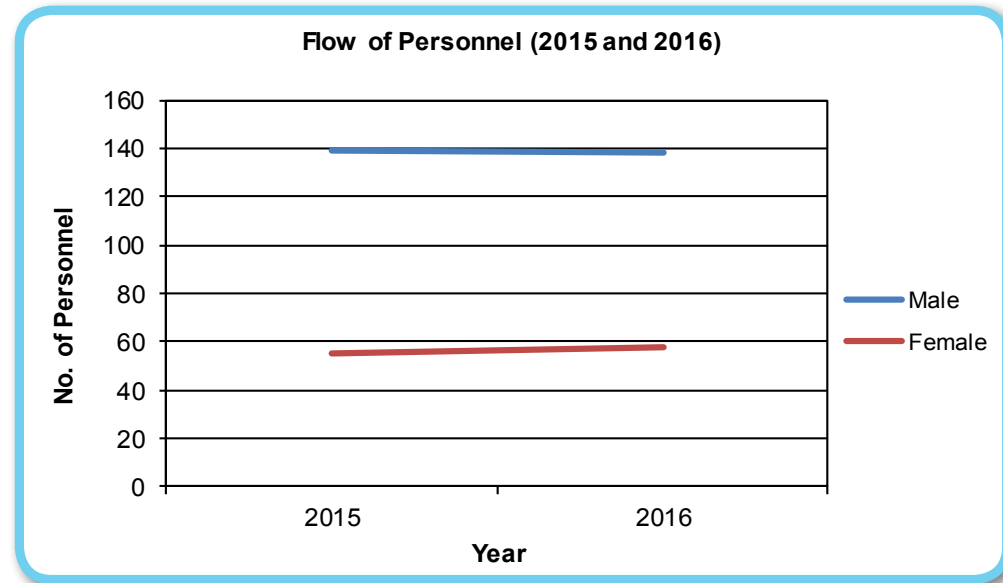
The total work force of the District as of December 31, 2016 consisted of 196 employees. Out of this, 134 (68%) were employees with Permanent status, 4 (2%) with Temporary status, and 58 (30%) with Job Order status.

Out of the 229 existing positions of BCWD, 138 had been filled up and distributed to the different offices/departments : the Office of the Board of Directors, Office of the General Manager and Management Services Department – 16 positions; Administrative Services Department – 28 positions; Finance Department – 16 positions; Commercial Services Department – 23 positions; Engineering Department – 9 positions; Pipeline and Appurtenances Maintenance Department – 25 positions; and Production & Distribution Department – 21 positions.

In the distribution of personnel, including the reassigned personnel from one office/department to another office/department, PAMD had the highest personnel count – 40 (21%), followed by the Admin Department - 33 (17%), Production Department – 32 (16%), Commercial Department – 30 (15%), OBD/OGM/MSD – 26 (13%), Finance Department – 21 (11%), and the Engineering Department – 14 (7%).



**FLOW OF PERSONNEL**



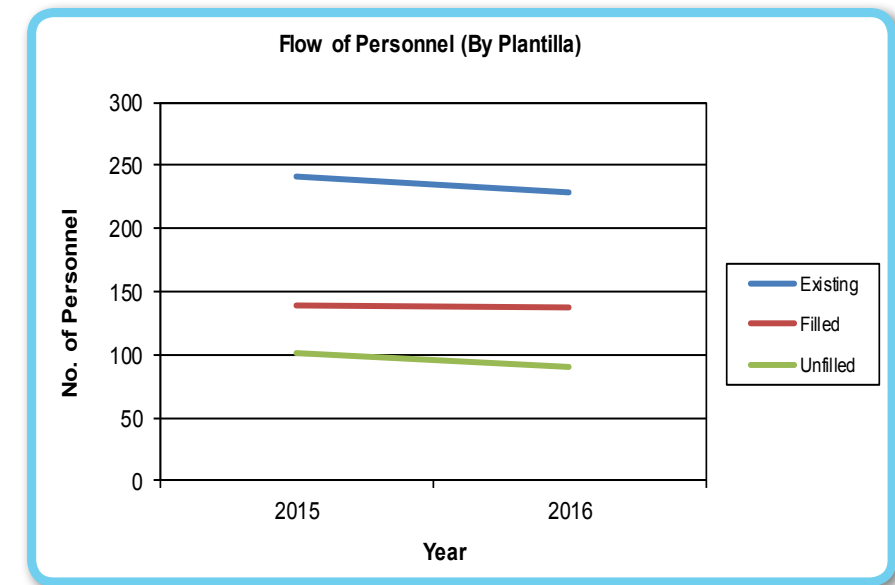
The personnel count for the year 2016 increased by two (2) employees compared to 2015. The Male population decreased by 1 employee due to retirement/resignation and Female population increased by 3 employees because of recruitment/hiring.

**Figure \_\_\_ Distribution of Personnel by Plantilla**

Plantilla	2015	2016	Variance
Existing	241	229	(12)
Filled	139	138	(1)
Unfilled	102	91	(11)

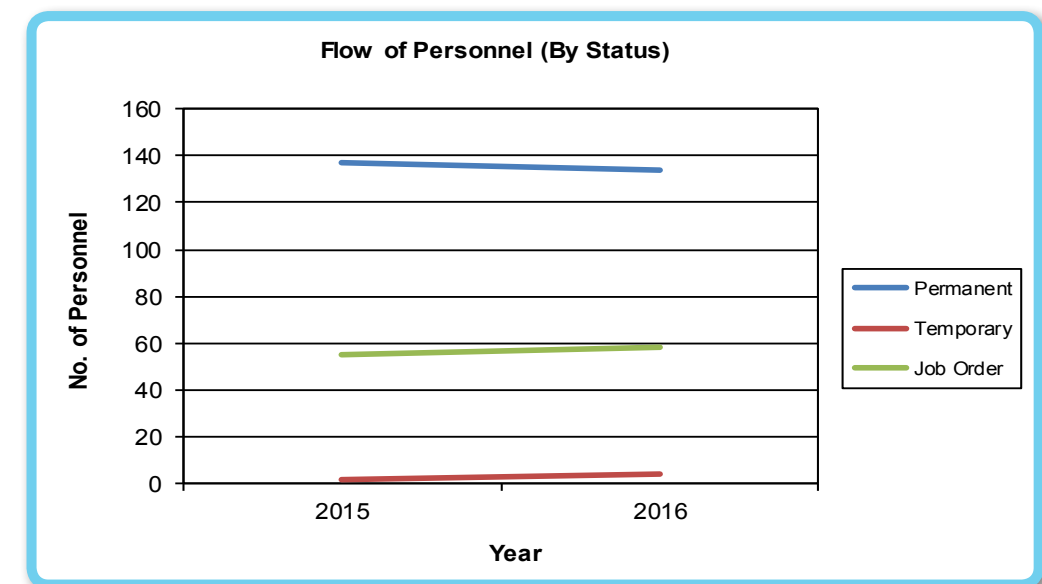
**Figure \_\_\_ Flow of Personnel (Plantilla)**

The number of filled up plantilla positions decreased by one (1) position due to retirement/resignation and unfilled plantilla positions decreased by eleven (11) positions in 2016 compared to 2015 due to scrap and build with a total decreased of twelve (12) positions on the Existing plantilla.



The number of employees from 2015 increased by two (2) in 2016 due to personnel recruitment/ hiring.

**Figure 13. Flow of Personnel Positions (by Status)**





## Staff Productivity Index

### Staff Productivity Index Based on Active Water Service Connections (from 1995 to 2016)

YEAR	No. of Active Connections	Existing No. of Personnel	Staff Productivity Index (1 Staff per 120 Connections)	Variance
1995	13,296	116	111	(5)
1996	14,205	112	118	6
1997	14,903	137	124	(13)
1998	15,779	117	131	14
1999	17,376	121	145	24
2000	19,020	121	159	38
2001	20,331	130	169	39
2002	21,156	133	176	43
2003	23,163	132	193	61
2004	25,139	137	209	72
2005	27,560	141	230	89
2006	28,892	131	241	110
2007	30,273	131	252	121
2008	31,972	140	266	126
2009	32,255	150	269	119
2010	33,456	154	279	125
2011	34,285	168	286	118
2012	35,726	167	298	131
2013	37,703	176	314	138
2014	39,435	179	329	150
2015	40,770	194	340	146
<b>2016</b>	<b>43,524</b>	<b>196</b>	<b>363</b>	<b>167</b>

Based on the Staff Productivity Index per Active Water Service Connections with the standard ratio of 1 employee per 120 connections (1:120) as determined by the Local Water Utilities Administration and the Department of Budget and Management, the District was still understaffed. As of December 31, 2016 with **196** employees, the number of service connections per employee ratio was **1:363**, thus, with a variance of **167** lacking personnel as indicated in the table above.

## Personnel Movement

### No. of Appointments

Status	No. of Appointments	Variance	Variance
	2015	2016	
Promotion – Permanent	10	5	(5)
Promotion - Temporary (in nature)	1	3	2
Temporary Status to Permanent	0	2	2
Contractual to Permanent	0	0	0
Job Order to Permanent	10	8	(2)
Job Order to Temporary	1	1	-
Job Order to Contractual	0	0	0

The table shows that in 2016, five (5) permanent personnel were promoted; three (3) had their status under temporary appointment; two (2) had their status changed from temporary to permanent; eight (8) job order employees had their status changed from JO to permanent; and no job order employee had his status changed from JO to temporary.

### Trainings, Conventions, Seminars

There were a number of in-house and outside trainings, conventions or conferences and seminars attended by officers and employees for honing their expertise. By attending these trainings, conventions and seminars, BCWD manpower acquired the competencies to carry out programs and activities for the attainment of its goals and objectives.

A total of 13 in-house trainings conducted or sponsored by BCWD in 2016. A number of employees were sent to 12 different trainings and seminars conducted by other institutions. The Board of Directors, management and some employees attended 19 various regional and national conventions and conferences of various water utilities' associations and other professional organizations.

## Results of Operation

### Revenues

As reflected in the Statement of Comprehensive Income, the District's accumulated water sales, net of discounts, amounted to ₱301,960,243.27 which was ₱17,279,473.32 or 5% short of the projected water sales for CY 2016. One of the main factors that may cause this variance was that the projected average consumption per connection of 16.43 cubic meters (cu.m.) was not met. Our average consumption per connection for the year was only 15.32 cu.m., or 1.11 cubic meters lower than the expected consumption.

### Expenses

Lesser operating and maintenance expenditures incurred, reflecting a favorable variance of ₱38,532,569.41 or 12.95% reduction against budget of this year. The total operating and financial expenses for CY 2016 amounting to ₱259,007,755.67 was equivalent to 82% of the total revenues, leaving a net surplus of P58,019,441.21 or approximately 18%.

TABLE III

## INCOME STATEMENT

For the Years Ended December 31, 2016  
(With Comparative Figures for 2015 and Projected Figures for 2016)

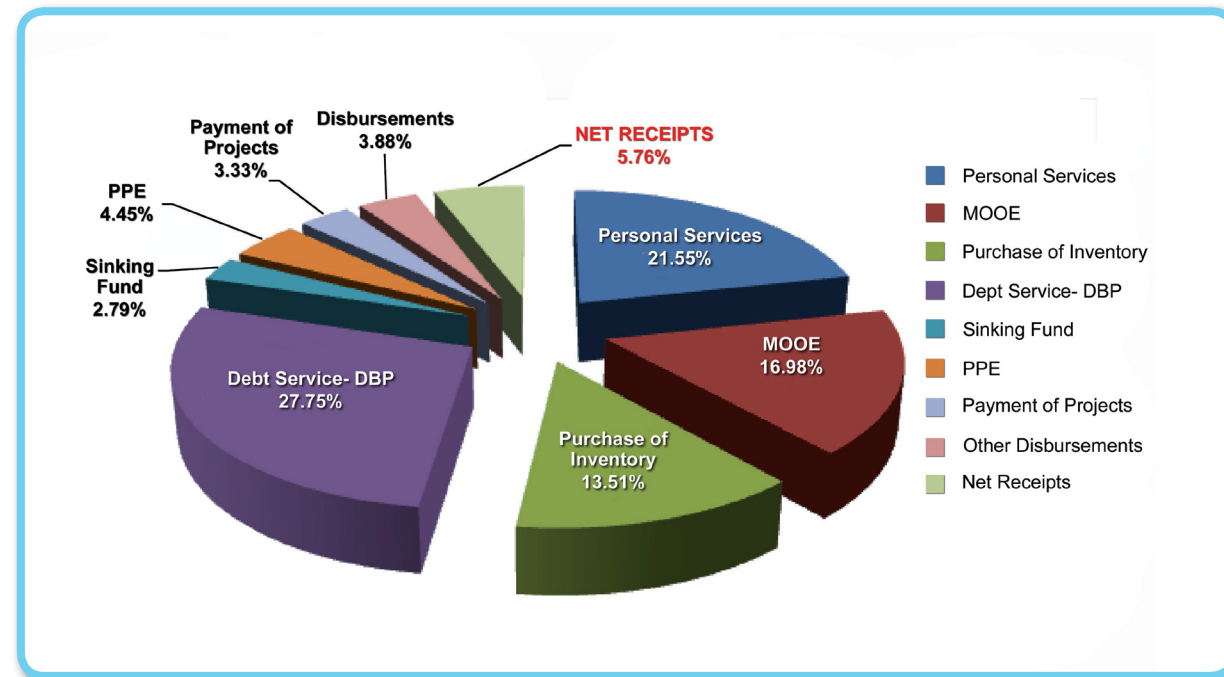
	2016	2015	INCREASE/ (DECREASE)	% INCREASE/ (DECREASE)	2016 PROJECTION	FAVORABLE/ (UNFAVORABLE) VARIANCE	% FAVORABLE/ (UNFAVORABLE) VARIANCE
<b>REVENUES</b>							
Water Sales	301,960,243.27	286,526,227.05	15,434,016.22	5.39%	319,239,716.52	(17,279,473.25)	(5.41%)
Penalties & Other Service Income	8,393,868.71	8,948,962.65	(555,093.94)	(6.20%)	8,540,116.91	(146,248.20)	(1.71%)
Other Operating Income	2,520,520.75	2,410,856.00	109,664.75	4.55%	2,445,290.33	75,230.42	3.71%
Other Non-Operating Income	4,152,564.15	3,814,810.89	337,753.26	8.85%	2,464,584.37	1,687,979.78	68.49%
<b>TOTAL REVENUES</b>	<b>317,027,196.88</b>	<b>301,700,825</b>	<b>15,326,371.88</b>	<b>5.08%</b>	<b>332,689,708.13</b>	<b>(15,662,511.25)</b>	<b>(4.71%)</b>
<b>EXPENSES</b>							
Salaries and Wages	40,988,802.01	39,333,974.18	1,654,827.83	4.21%	49,968,805.74	8,980,003.73	17.97%
Pumping cost	8,060,864.41	10,299,499.98	(2,238,635.57)	(21.74%)	9,451,866.94	1,391,002.53	14.72%
Chemical Treatment	2,575,236.85	2,320,535.00	254,701.85	10.98%	2,919,631.22	344,394.37	11.80%
Other O & M Expense	99,357,588.15	83,191,017.62	16,166,570.53	19.43%	125,345,028.89	25,987,440.74	20.73%
Depreciation Expense	56,255,346.68	54,496,685.15	1,758,661.53	3.23%	57,151,655.49	896,308.81	1.57%
Interest Expense	45,077,785.13	54,163,405.59	(9,085,620.46)	(16.77%)	45,077,785.13	0.00	0%
Taxes	6,240,104.59	5,831,774.06	408,330.53	7.00%	7,172,523.82	932,419.23	13.00%
Other Financial Charge	452,027.85	543,384.06	(91,356.21)	(16.81%)	453,227.85	1,200.00	.26%
<b>TOTAL EXPENSES</b>	<b>259,007,755.67</b>	<b>250,180,275.64</b>	<b>8,827,480.03</b>	<b>3.53%</b>	<b>297,540,525.08</b>	<b>38,532,769.41</b>	<b>(12.95%)</b>
<b>NET INCOME</b>	<b>58,019,441.21</b>	<b>51,520,550.95</b>	<b>6,498,891.85</b>	<b>12.61%</b>	<b>35,149,183.05</b>	<b>22,870,258.16</b>	<b>65.07%</b>

## Cash Flows

For the calendar year 2016, we generated a Net Cash balance of ₱188,360,026.36 or a net increase of ₱19,363,011.73 as compared to last year's cash balance, equivalent to nearly 11.46% increase from last year.

Out of the ₱335,986,176.43 total cash receipts for the calendar year, the total disbursements paid amounted to a total of ₱316,623,164.70 or roughly 94.24% of the total cash receipts leaving a net cash surplus of 5.76% or ₱19,363,011.73. As illustrated in Figure 1 below, the biggest cut of the District's spending was the payment of debt service for loans to DBP which showed 29.45% of the total disbursements. In addition, the payment of Personal Services for salaries, wages and allowances to officers and employees is equivalent to 22.87% or approximately ₱72,400,349.48. While disbursements spent for the maintenance and operation amounted to ₱57,032,920.71 or close to 18.01% of the total cash disbursement.

PIE Chart for **DISTRIBUTION OF CASH RECEIPTS**  
For CY 2016



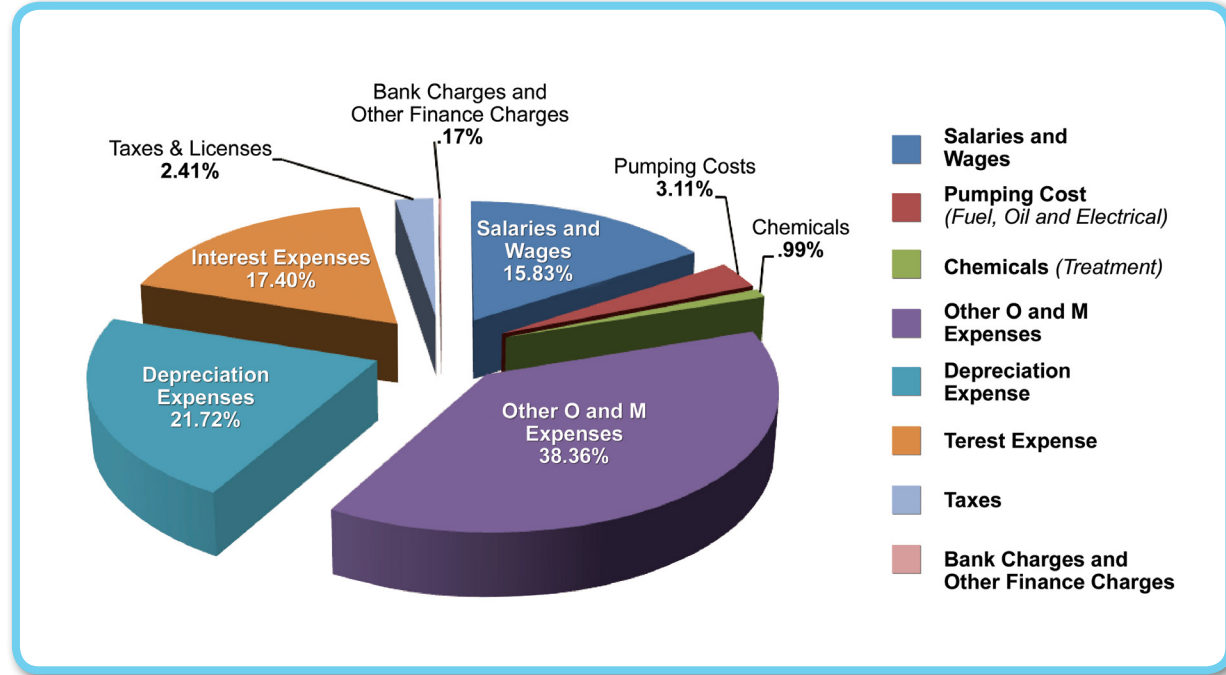
## CASH FLOW STATEMENT

For the Year ended December 31, 2016  
(With Comparative Figures for CY 2015 and CY 2016 Budget)

	YEAR TO DATE						
	CY 2016	CY 2015	INCREASE (DECREASE)	% INCREASE (DECREASE)	BUDGET	FAVORABLE/ (UNFAVORABLE) VARIANCE	%FAVORABLE/ (UNFAVORABLE) VARIANCE
<b>Cash Inflows</b>							
Collection of Water Sales	300,980,575.23	282,048,434.78	18,932,140.45	7%	320,087,212.24	(19,106,637.01)	(6%)
Fines & Penalties	8,391,790.66	8,967,416.44	(575,625.78)	(6%)	8,539,321.89	(147,531.23)	(2%)
Other Operating Income	8,576,107.24	7,690,147.82	885,959.42	12%	9,574,831.78	(998,724.54)	(10%)
Other Non-Operating Income	517,763.87	490,357.59	27,406.28	6%	441,003.86	76,760.01	17%
Customer's Deposit	3,327,281.17	3,601,598.41	(274,317.24)	(8%)	2,592,161.87	735,119.30	28%
Sale of P.E tubes	2,511,105.70	2,128,275.32	382,830.38	18%	1,225,625.50	1,285,480.20	105%
Other Receipts	11,681,552.56	5,648,002.27	6,033,550.29	107%	20,209,747.02	(8,528,194.46)	(42%)
<b>Total Cash Inflows</b>	<b>335,986,176.43</b>	<b>310,574,232.63</b>	<b>25,411,943.80</b>	<b>8%</b>	<b>362,669,904.16</b>	<b>(26,083,727.73)</b>	<b>(7%)</b>
<b>Cash Outflows</b>							
Personal Services	72,400,349.48	66,331,801.61	6,068,547.87	9%	99,558,528.26	27,158,178.78	27%
MOOE	57,032,920.71	62,589,161.13	(5,556,240.42)	(9%)	73,741,909.13	16,708,988.42	23%
Purchase of Inventory	45,406,592.34	8,319,221.35	37,087,370.99	446%	64,949,167.99	19,542,575.65	30%
Prepayments & Deposits	1,509,028.40	1,465,188.00	43,840.40	3%	1,939,065.13	430,036.73	22%
Payables	6,107,709.17	9,944,654.46	(3,836,945.29)	(39%)	11,460,574.84	5,352,865.67	47%
Release of Advances	4,967,332.72	5,140,399.66	(173,066.94)	(3%)	6,734,228.85	1,766,896.13	26%
Sinking Fund	9,389,439.19	8,645,278.00	744,161.19	9%	9,861,817.92	472,378.73	5%
Property, Plant & Equipment	14,966,314.48	9,276,131.20	5,690,183.28	61%	23,215,269.48	8,248,955.00	36%
Payment of Projects	11,173,735.01	11,470,879.14	(297,144.13)	(3%)	35,390,173.58	24,216,438.57	68%
Debt Services	93,246,351.17	76,131,633.12	17,114,718.05	22%	93,247,101.18	750.01	0%
Other Disbursement	423,392.03	5,246,091.12	(4,822,699.09)	(92%)	39,389.89	(384,002.14)	(975%)
<b>Total Cash Outflows</b>	<b>316,623,164.70</b>	<b>264,560,438.79</b>	<b>52,062,725.91</b>	<b>20%</b>	<b>420,137,226.25</b>	<b>103,514,061.55</b>	<b>25%</b>
<b>Net Increase/ (Decrease) in Cash</b>	<b>19,363,011.73</b>	<b>46,013,793.84</b>	<b>(26,650,782.11)</b>	<b>(12%)</b>	<b>(57,467,322.09)</b>	<b>(103,481,115.93)</b>	<b>-18%</b>
<b>Add: Cash Balance, Beginning</b>	<b>168,997,014.63</b>	<b>122,983,220.79</b>	<b>46,013,793.84</b>	<b>11%</b>	<b>168,997,014.63</b>	<b>(46,013,793.84)</b>	
<b>Cash balance, Ending</b>	<b>188,360,026.36</b>	<b>168,997,014.63</b>	<b>19,363,011.73</b>		<b>111,529,692.54</b>	<b>57,467,322.09</b>	<b>52%</b>

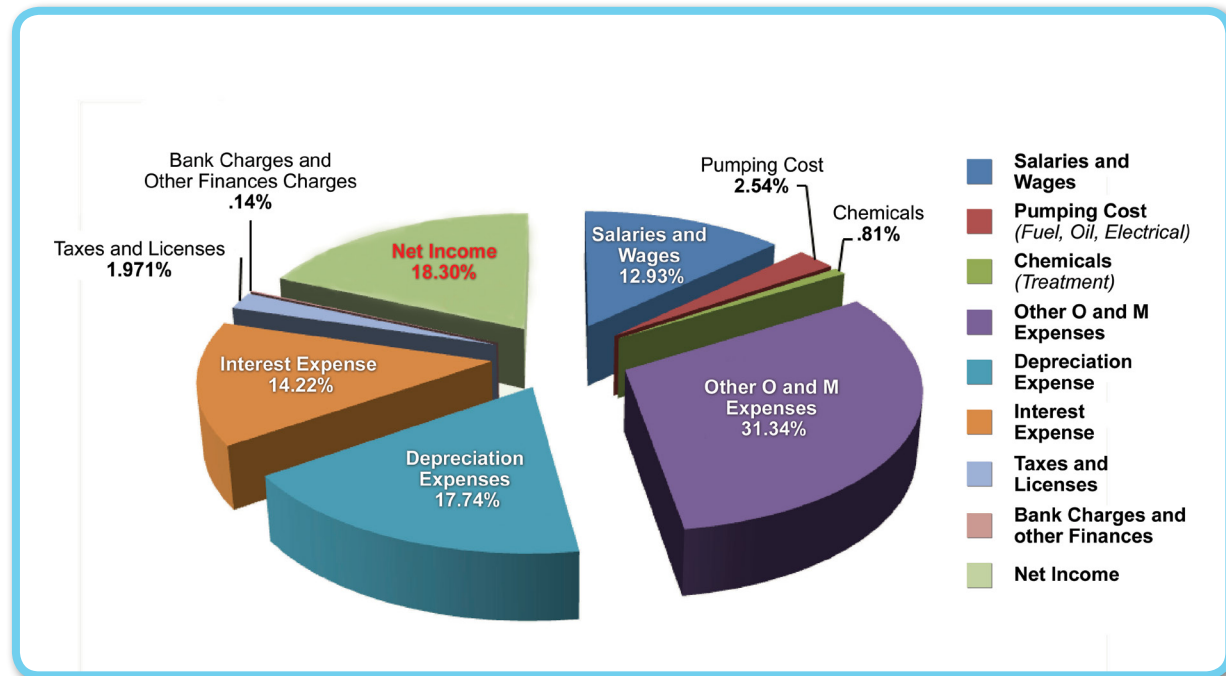
PIE Chart for **DISTRIBUTION OF EXPENSES**

**For CY 2016**



PIE Chart for **DISTRIBUTION OF INCOME AND EXPENSES**

**For CY 2016**



## Financial Position

### Assets

For CY 2016, we accumulated total assets amounting to ₱1,382,748,581.60, with net increase of ₱9,761,416.57 or approximately .71% from last year's net assets. The cash deposits in bank increased by ₱19,146,525.83 or 11.42%, shared part of the favorable reasons for the increase of the total assets. However, there was a significant decrease in the Accounts Receivables (water sales) due to reclassification of inactive account aged over one (1) year. The inventory account showed a considerable amount of increase which was ₱12,321,087.42 or 52.08%. This was due to un-issued supplies and materials for various on-going and not yet implemented projects as the year ended. Also forming part of the asset was the Sinking Fund account which contributed a total increase of ₱9,389,439.19 or 20.15% of its total amount.

The Property, Plant and Equipment account amounting to ₱1,035,514,245.10, net of accumulated depreciation for various office equipment and machineries, plant, building and structure, and various on-going projects such as upgrading and expansion of distribution lines in service areas such as Brgy. Basag, Brgy. Tiniwisan, Sunrise Brgy. Ampayon, Buod to Purok 6 Kalubihan Pinamanculan, Brgy. Bading, Brgy. Taguibo, Brgy. Diego Silang from R.Calo to McDonald Bldg., Narra Road New Society Village and Silad Mahogany.

Moreover, for the improvement of the district's services to its concessionaires and to lessen the long standing high rate of Non- Revenue Water ( NRW ), BCWD continuously implemented a project to reduce the losses on revenues by reducing the non-revenue down to be at par with the national standard requirement. It engaged the services of a consultant who had been a co-author of various operation and maintenance manuals for local water districts including program for NRW reduction, hydro analysis and design. In addition, the proposed MBPP Development Program had been undertaken to meet the future demand of water supply of Butuan City.

### Liabilities and Government Equity

Liabilities of the District amounting to ₱98,901,803.95, consisted of payables to suppliers and creditors for goods and services rendered but not yet paid, Collective Negotiation Agreement ( C N A ) Incentives and other employees benefits, inter-agency payables to GSIS, PAGIBIG, SSS, and PHILHEALTH for monthly loan and premium payments, current portion of loans from DBP payable within one year, intra-agency payable which was a partial payment from retired/resigned BCWD employees for their COA disallowances and also trust receipts from various suppliers for the contractor's security deposit such as the bid security and performance bond.

The long-term Loans Payable account, on the other hand, was composed of loans from DBP and LWUA amounting to ₱ 763,258,672.42. A decrease in interest expense and gross receipt tax of ₱9,176,476.67 in 2016, significantly contributed to the district's operation.

The Government Equity account was composed of Retained Earnings representing the accumulated net earnings of the District since the inception of its operation. The net increase of the Equity account was ₱57,925,1257.57 or 13.63% increase from last year. Huge part of this increased was the result of operation which generated a net income of ₱58,019,441.21 surpassing the year's budgeted net income by 165%.

## BALANCE SHEET

As of December 31, 2016  
(With Comparative Figures for CY 2015)

	CY 2016	CY 2015	INCREASE/ (DECREASE)	% INCREASE/ (DECREASE)
<b>ASSETS</b>				
Cash	188,360,026.33	168,997,014.63	19,363,011.70	11.46
Receivables (Net)	33,047,570.90	39,563,238.95	(6,515,668.05)	(16.47)
Inventories	35,976,896.59	23,655,809.17	12,321,087.42	52.08
Prepayments and Deposits	3,266,027.77	3,845,859.63	(579,831.86)	(15.08)
Deferred Charges	17,469,483.69	17,465,534.28	3,949.41	(0.0002)
Investments	720,994.32	715,882.97	5,111.35	(0.0071)
Property, Plant and Equipment (Net)	1,035,514,245.10	1,063,831,330.55	(28,317,085.45)	(2.66)
Other Assets	68,393,336.90	54,912,494.85	13,480,842.05	24.55
<b>TOTAL ASSETS</b>	<b>1,382,748,581.60</b>	<b>1,372,987,165.03</b>	<b>P9,761,416.57</b>	<b>0.71</b>
<b>Liabilities and Government Equity</b>				
<b>Current Liabilities</b>				
Payable Accounts	19,132,089.24	28,182,798.92	(9,050,709.68)	(32.11)
Inter and Intra Agency Payables	3,580,378.42	2,739,819.66	840,558.76	30.68
Other Payables	23,238,794.13	17,099,773.08	6,139,021.05	35.90
Current Portion of Loans	52,950,542.16	47,721,328.74	5,229,213.42	10.96
<b>Total Current Liabilities</b>	<b>98,901,803.95</b>	<b>95,743,720.40</b>	<b>3,158,083.55</b>	<b>3.30</b>
Non-Current Liabilities Loans Payable	763,258,672.42	816,205,293.13	(52,946,620.71)	(6.49)
Deferred Credits	19,803,095.46	18,178,269.30	1,624,826.16	8.94
<b>Total Liabilities</b>	<b>881,963,571.83</b>	<b>930,127,282.83</b>	<b>(48,163,711.00)</b>	<b>5.46</b>
Government Equity	500,785,009.77	442,859,882.20	57,925,127.57	13.08
<b>Total Liabilities and Government Equity</b>	<b>1,382,748,581.60</b>	<b>1,372,987,165.03</b>	<b>9,761,416.57</b>	<b>0.71</b>

## PROCUREMENT

We were able to conduct and complete several public biddings. There were 11 awarded contracts, worth ₱32M, to various suppliers who had the lowest calculated bids and passed all the requirements.

On the other hand, the number of Purchase Requests, Budget Utilization Requests, Certificate of Acceptance and Billing Statements for BUR processed for regular procurement and bidding increased in 2016 compared with those in 2015 while Job Requests, Abstracts of Price Quotations, Requests for Price Quotations, Purchase Orders and Job Orders processed for regular procurement decreased in 2016. The significant increase was due to the much needed maintenance and improvement of the BCWD services, building, vehicles and other appurtenances while the decrease of requests was due to minimal requests from different departments that would affect the quantity of Abstract, RFQ, PO and JO.

### SYSTEMS DEVELOPMENT

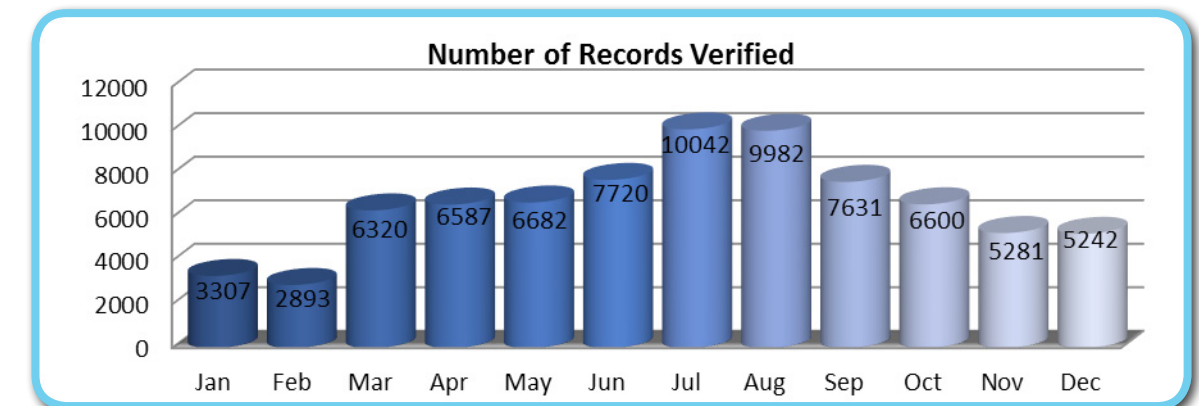
It has been our thrust to speed up business processes through utilization of information and communication technology (ICT). We continually develop information systems to cater the demands of various departments, divisions and sections of the agency.

In 2016, we developed new systems such as Service Application and Construction Order (SACO) Electronic File System and the Enhanced Collection System for our Collecting Agents. These new systems will contribute a lot in the efficiency of our operation.

### DATABASE MANAGEMENT

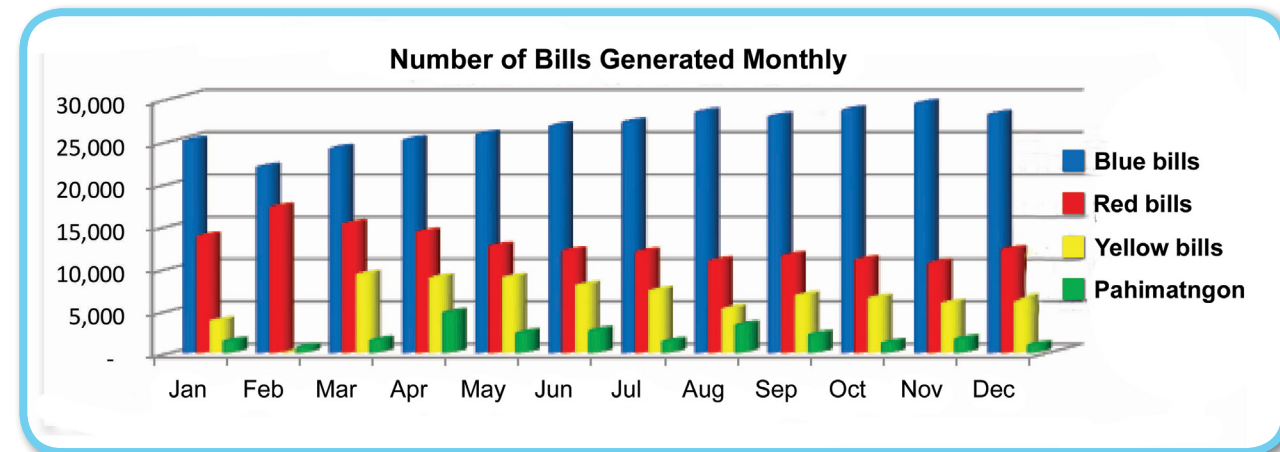
The number of verified/checked records depended on the total output of the records encoded.

#### Records Verified



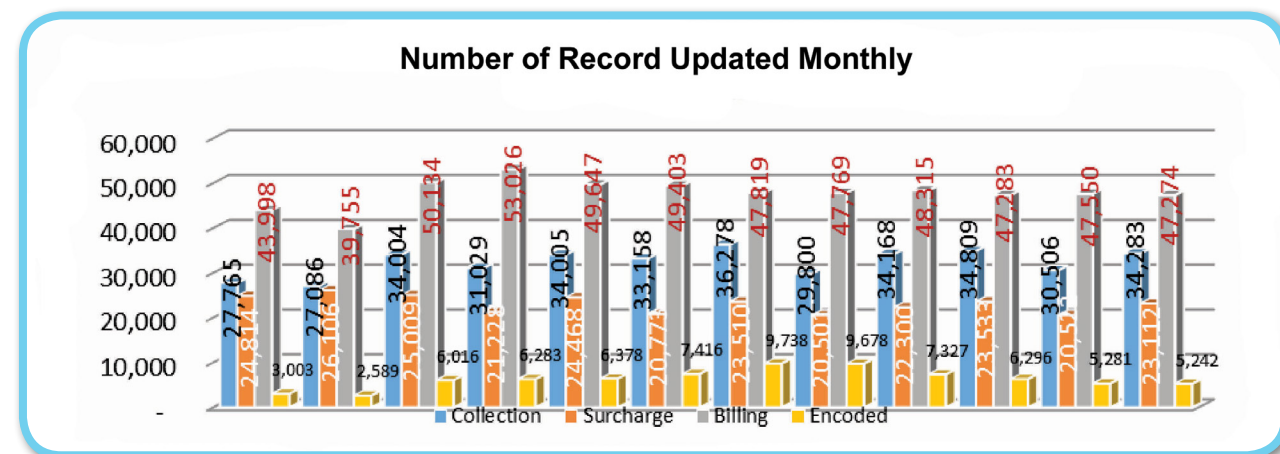
For the number of bills generated, blue bills (concessionaires with current water accounts) were much more higher compared to red bills (concessionaires with arrears greater than guaranty deposit).

## Monthly Bills Generated



As we look at the graph for the number of records updated, we can notice that the number of concessionaires billed is much greater compared to number of concessionaires paid. This tells us that our monthly collection is lesser compared to monthly billing. In other words, most of our concessionaires in 2016 were paying partially; hence, the number of surcharges were also high.

## Updated Records

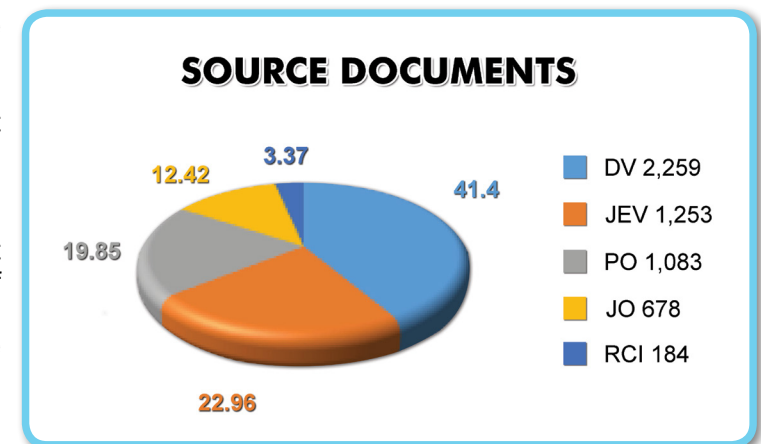


## Internal CONTROL

Our Internal Audit Division (IAD), guided by the Philippine Government Internal Audit Manual (PGIAM) and ISO 19011:2011 Guidelines for Auditing Management System, assisted the management by conducting a separate evaluation to ascertain the degree of compliance with laws, rules, regulations, contract and managerial policies, ascertained that assets were accounted for and safeguarded from losses, evaluated the effectiveness and efficiency of the operations; and assessed the internal control system (ICS) whether they were well designed and properly implemented. These consisted of pre-audit, verification and such other procedures considered necessary to determine whether controls were in place over processes and evidence of process efficiencies and effectiveness.

### Pre-audit of transaction documents

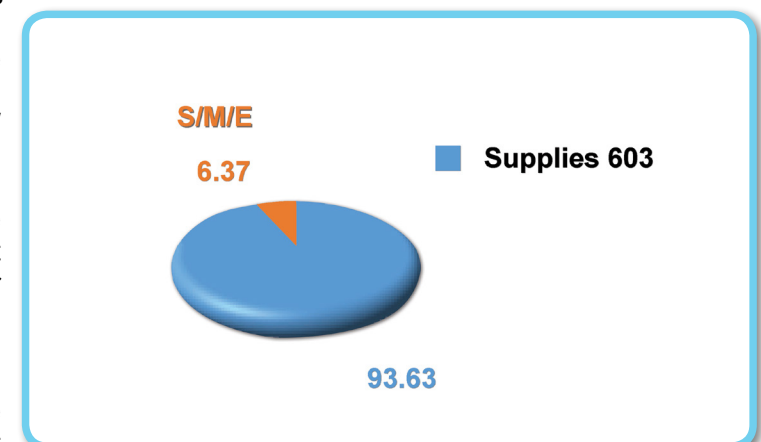
Pre-audit was conducted daily on transaction documents before these are paid for and recorded. The total number of documents pre-audited in 2016 was 5,457. Disbursement Vouchers (DV) with a total of 2,259; Journal Entry Vouchers with 1,253; Purchase Orders (PO) with 1,083; Job Orders (JO) with 678 and Report of Checks Issued (RCI) and Report of Disbursements (RD) with 184. Details on the ratio are reflected in the pie chart.



A total of 307 findings and observations were noted during the conduct of pre-audit as reported in the Monthly Summary of Audited Transactions. These observations were already corrected and complied with by the concerned personnel.

### Accounting and Safeguarding of Assets

As declared policy that all resources of the government are managed, expended and utilized in accordance with laws and regulations, BCWD conducted inspection on supplies/materials/equipment (S/M/E) for items amounting to ₱50,000.00 below upon receipt of Inspection Requests from the Property and Materials Management Division (PMMD) and from the Letter Requests by the departments.



In 2016, a total of 744 transactions (per Purchase Order served) were inspected, with supplies and equipment totaling to 603 and 41 respectively, as reflected in the chart.

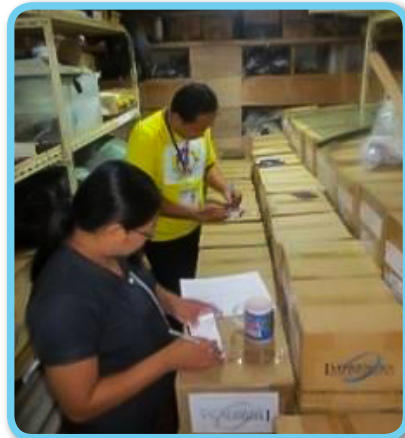
A monthly surprise cash count/cash examination had also been performed to the Accountable Officers including Revolving Fund Custodians of Petty Cash Fund and Working Fund to check if the cash in their custody actually existed and items presented were viable. BCWD also determined if cash balances surrendered were correctly recorded.

Cash overages and shortages incurred by these Accountable Officers were just minimal pursuant to the internal guidelines.



### Other highlights during FY 2016

- Provided technical assistance to the system users thru cliquing, mentoring and orientation. Complaints, on the other hand, were evaluated and recommended with initial actions pursuant to the established District policies, rules and regulations. However, for suggestions and opportunities for improvement, they were given consideration and had been incorporated in the systems manual.
- Conducted walk through observation and continued monitoring and evaluation on the established systems, financial accounting application and other operating regulations to ascertain compliance with established policies and applicable laws and regulations.
- Observed the semi-annual physical inventory-taking on materials and supplies and the annual physical inventory-taking on both Supplies/Materials and Property, Plant and Equipment (PPE).
- Initiated and conducted **ISO 9001:2008 Internal Quality Audit Orientation Seminar** for newly-assigned Internal Quality Auditors and one-day IQA Workshop Orientation dated March 18, 2016 and October 27, 2016, respectively.
- Inspected hydrotesting activities, on-going and completed projects implemented by admin.



- Attended seminars and trainings to ensure that internal audit practices, methods and procedures were improved and updated through continuing education in conformity with Administrative Order Nos. 278 and 70. Seminars and trainings encompassed a variety of topics including risk management, internal quality audit, strengthening internal control systems in government agencies, updates on RA 9184 and SPMS, strengthening partnership with Institute of Internal Auditors - Philippines and challenges in internal auditing in public sector.
- The inspectorate Team was constituted and performed inspection on S/M/E amounting to ₱50,000.00 and above.
- The top five major inspections conducted by the team during the year were those goods/services delivered by XD Ever Transformer Service Corp. (Water Meter Assembly), Fast Autoworld Philippines Corp. (Water Tanker), VC Garcia Industrial Corp. (Varipus Brass Fittings), Makati Foundry (Various bends, flange and coupling) and Goodyear Steel Pipe Corp. (Various Pipes) in the amount of ₱8,109,075.00, ₱4,998,000.00, ₱4,880,460.00, ₱4,410,431.30 and ₱4,232,611.41, respectively.

### Internal Quality Audit

Internal Quality Audits (IQA) were conducted on April, June and November of 2016 to determine whether placed internal controls in the system policies and procedures were effectively implemented and maintained and whether these were in conformance with ISO 9001:2008 QMS, statutory and regulatory requirements.

Our audit plan was scoped to cover the elements and processes of all departments, including the familiarity of the employees and officers with adherence to procedures, policies and documentation reports and records.

During the course of audit, a total of 89 findings and observations were noted in the processes, practice and papers being audited - 19 minor nonconformances and 70 internal audit observations. Although numerous issues were identified, it was still a good thing that these would be addressed to improve the weaknesses in the design of controls and the effectiveness of the QMS. Besides, the IQA team had also identified areas of good practice and further determined effectiveness of the Quality Management System and evaluated where continual improvement could be made, subsequent internal audits were scheduled.

# Environmental Concern

## 2011-2013 Reforestation Projects

BCWD partnered with various watershed stakeholders and campaigned for the protection and rehabilitation of Taguibo River Watershed Forest Reserve (TRWFR). As a result, reforestation projects through agro-forestry system were established within the proclaimed TRWFR in CY 2011-2013 with a total of 25 hectares of barren land identified for the project. For 10 hectares of the identified area, the project were implemented through hired “pakyaw” system and the remaining 15 hectares were through family approach whereby partner beneficiaries were the one who carried out the maintenance activity.

For CY 2016, a maintenance program was prepared to ensure the survival of the existing planted trees. The approved maintenance program included clear brushing, strip bushing and round weeding which were done quarterly and resulted to a survival rate of 88.99% from 88.18 % in 2015. Continues replanting was conducted specially to those areas where survival rate was low.



**RAMON MORALES AREA**



**PETER CABATON AREA**

## National Greening Program (NGP)

In 2013, the BCWD lobbied for more reforestation project within the TRWFR. Subsequently, on June 23, 2014, a Memorandum of Agreement (MOA) was signed with the Department of Environment and Natural Resources (DENR), District Constituency Office of the first district of Agusan del Norte, and Father Saturnino Urios University Foundation Incorporated (FSUUF) for a reforestation project within the TRWFR covering 130 hectares.

The project consisted of two phases: the first phase covered 49 hectares and was implemented in October 2014. The second phase, for 81 hectares and was implemented in December 2015.

Maintenance activities with approved schedule and with a shared financial support from the DENR were conducted quarterly thereafter with BCWD taking the lead especially as to the field activities.

Five (5) local residents were hired by BCWD through “pakyaw” contract to assist in the monitoring and evaluation of the field activities and to ensure that the maintenance activities were conducted following the approved schedule. These five (5) “pakyaw” hired serve also as Forest Guards.

In 2015, the survival rate was 93.50 % while at the end of CY 2016, the survival rate was 95.03 %. Continuous replanting was conducted in order to ensure higher survival rate of the project. The survival rate was measured based on the original number of seedlings planted.



**CASIDO, ERLINDA AREA**



**GACETA, HELEN AREA**

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## 35 Hectares Reforestation Project

For CY 2014-2015, about 35 hectares of second growth forest were identified within the proclaimed Taguibo Watershed that needed enhancement through planting of endemic trees, fruit trees, Bamboo & Balete along the creeks of Lakdayon, Bangonotan, Dodolongan and Sogayanon, all tributaries of Dugyaman creek situated at Sitio Dugyaman, Brgy. Anticala, Butuan City, top most portion of Taguibo Watershed.



**BAMBOO RIVERBANK STABILIZATION**



**BANYAN/BALETE PLANTATION**



The project covered 17 hectares of Bamboo plantation, 17 hectares of Agro-forestry system and 1 hectare Banyan/Balete tree plantation. Bamboos were planted along creeks in response to river banks stabilization strategy, Agro-forestry system was implemented in the second growth forest as enrichment planting or improving vegetative cover of the area and Banyan/Balete tree were planted strategically within the Taguibo Watershed.

The maintenance program was conducted with maintenance activities performed on a quarterly basis by local residents hired through “pakyaw” contract. The survival rate of the planted trees was 86.7 % at the end of 2016.

### Adopt-A-Forest Program

BCWD designed an “Adopt a Forest Program” for individuals, institutions and organizations desiring to contribute in the rehabilitation of the watershed. Donation may be in the form of the conduct of actual tree planting activities and/or financial donation for reforestation of one or more hectares within the TRWFR. This ensures that the seedlings provided and planted will be maintained and monitored regularly. In this manner, high survival rate of the planted seedling is ensured that eventually will enhance the forest cover of the TRWFR.

Adopt-A-Forest Program will make possible for every one of us to proactively involve in the protection and preservation of our watershed by planting and growing trees and/or by just donating funds for the reforestation project.

In April 2016, about six (6) hectares were planted with fruit and forest trees in partnership with Phoenix Foundation, Inc. (5 hectares) and Atty. Genaro Jeremiah Wil C. Asis (1 hectare).



**EGOM, ANALYN (PHONIX FD'N. AREA)**



**ATTY. ASIS AREA**

In December 2016, BCWD planted additional 15 hectares in partnership with Butuan Doctors Hospital & Colleges Inc. (10 hectares) and one (1) hectare each for Couples For Christ Global, CFC School of the Morning Star, Terence Yu, Crispin Young & Family and Chinese Catholic Lourdes Community.



**DOCDOC, ALBERTO AREA**



**CASIDO, RENEBOY AREA**

These partners supported the Adopt-A-Forest Program following the “financial donation” scheme whereby funds for 3-year maintenance of the planted seedlings were also provided.

# Adopt -a- Forest

Project of **Butuan City Water District**  
in **Taguibo River Forest Reserve**

**Adopt-A-Forest Project** is a 3-year tree planting and “parenting” project undertaken by BCWD which will serve as a model project for those individuals, institutions and organizations that would like to conduct tree planting activity and/or just donate or provide funds for one hectare or more hectares to be reforested in TRWFR.

## Public Information and Relations

BCWD continued to expand on existing internal and external projects in promotion of its programs and activities while also developing new initiatives to further its reach throughout Butuan City.

The year 2016 showcased new activities conducted to intensify water advocacy not only to the students but to the community as well. The new activities conducted this year were the Community Water Conservation Festival as part of the Water District Week Celebration and the celebration of the World Water Day with the conduct of Tree Planting and Workshop for Watershed Stakeholders.



CY 2016 will be memorized as a fruitful and opportunities-exploring year in BCWD's water advocacy projects. We initiated a series of new initiatives and committed to continue to bring BCWD to higher heights in terms of water advocacy making it more active than other water districts in the country. Specifically, we were able to conduct of the following activities:

1. Publication of news releases;
2. Regular preparation of press releases, announcements and statements regarding the activities of the District;
3. Conduct of live interviews through broadcast and television media for recent and updated developments of the District's operations;
4. Briefspot announcements made at various time during a broadcast day or advertisement placements in various print media;
5. Release of the magazine "BREAKWATER" to continuously update the public of BCWD's undertaking;
6. Preparation/Production of information materials such as regarding BCWD services, water conservation practices and other significant water fact sheets such as the **BREAKWATER NEWSBITZ**; and
7. Conduct of BCWD CSR Projects.

## PRESS / NEWS RELEASE

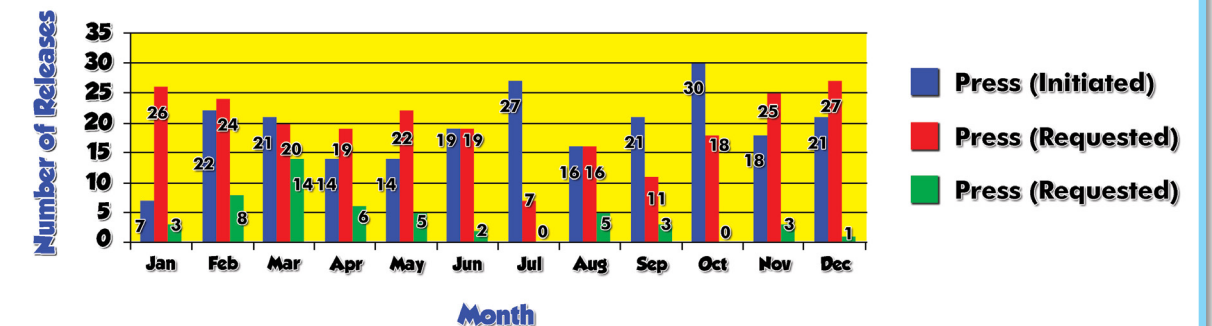
### Press Releases

- 464 stories / announcements (230 initiated press releases and 234 requested press releases) were released as of end of December compared to last year's 419 as of end of December.

### News Releases

- 50 news/feature stories were released as of end of December compared to last year's 59.

Number of Press/ News Releases for 2016 (Monthly)



### Interviews

- 71 Hook-in live / recorded interviews as of end of December compared to last year's 132 as of end of December 2015.

A decrease on the number of interviews can be noted due to the fact that 2015 recorded a high number of interviews as the early part of 2015, BCWD experienced a crisis with its water supply. The Infiltration Gallery was destroyed during the Typhoon Seniang and as such more than 70% of BCWD's source for water supply was not utilized. A barrage of interviews was conducted to address the issue especially since it was almost a month before BCWD was able to normalize its operations.

For 2016, BCWD's operation was normal and there were less water interruptions.

## INSTITUTIONAL AD / INFORMATIONAL PRODUCTION

### Advertisements

- For 2016, a total of 87 advertisements were produced for:

* Ads Productions Sponsorship	57
* Video Ads	<u>30</u>
	87

Compared to last year's 8,825 spots/placements covering broadcast, print, sponsorship and eboard, there was a huge decrease in the number of ads as it was seen that there was less need for advertisement placement as the water supply of BCWD had been more stable compared to the status of BCWD's water supply in 2015 wherein the system was destroyed during the Typhoon Seniang and for almost one month there was no water supply for Butuan City.

Advertisements are dependent upon the number request received from the trimedia and other agencies for sponsorship and subject to the approval of the general manager.

### Breakwater

A total of four (4) issues of Breakwater were released as of end of December 2016:

- \* 2015 4th quarter issue - 1,000 copies
- \* 2016 1st quarter issue - 1,000 copies
- \* 2016 2nd quarter issue - 1,000 copies
- \* 2016 3rd quarter issue - 1,000 copies
- 4,000 copies

Total number of copies produced per issue increased this year from 300 per quarter in 2015 to 1,000 per quarter in 2016 as BCWD had been using its own printer for the production of the Breakwater Magazine compared to last year wherein the printing of the magazine was done by outside printers.



### Informational Printing

As of end of December 2016, the BCWD was able to release the following printed materials:

- \* 2017 BCWD Calendar - 20,000 copies
- \* Notebooks - 2,450 copies
- \* **Leaflets**
  - BCWD in 60 Seconds - 6,000 copies
  - From Source to taps - 6,000 copies
  - Taguibo Watershed - 6,000 copies
  - Water Saving Tips - 6,000 copies
  - Ang Kamatuoran 1-8 - 332,000 copies
  - Water Festival - 4,000 copies
  - Adopt-a-Forest - 150 copies
  - 360,150 copies



### \* Breakwater Newsbitz

- Vol.2 No. 1 - 10,000 copies
- Vol.2 No. 2 - 10,000 copies
- Vol.2 No. 3 - 10,000 copies
- Vol.2 No. 4 - 10,000 copies
- Vol.2 No. 5 - 10,000 copies
- Vol.2 No. 6 - 10,000 copies
- Vol.2 No. 7 - 10,000 copies
- 70,000 copies

- A total of 41 tarpaulins were designed as of end of December.
- A total of 2 backdrops were produced.
- A total of 3 billboard refacing was completed as of end of December 2016.



### Production of Program / Invitation

A total of 320 copies of program invitations were produced for the different water district activities including the conduct of local contests and BCWD Anniversary, among others.

### Production of Video / Powerpoint Presentations

The BCWD was able to produce the following:

- \* Three (3) powerpoint presentations:
  - Annual Report 2015
  - World Water Day
  - Stakeholder Involvement in Watershed Management

## INSTITUTIONAL ACTIVITIES

### Local Contests

#### \* 12<sup>th</sup> Photo Contest



The 12<sup>th</sup> Photo Contest on-location shooting was conducted last March 16, 2016 at the upstream part of BCWD's Infiltration Gallery, Sitio Iyao, Brgy. Anticala. After the on-location shooting, contestants were required to submit the soft copy of their photos directly to the BCWD CREAD staff on-site for the judging of photos in the afternoon of the same date. A total of 8 elementary pupils and 4 high school students participated in the said contest.

#### \* 27<sup>th</sup> On-the-Spot Poster Making Contest



The 26<sup>th</sup> On-the-Spot Poster Making Contest was held last March 28, 2016 at the BCWD Roofdeck with the theme: "Watershed Conservation: Our Armor to Reduce the Effects of Climate Change" for the Elementary and "Water Conservation: an Intergenerational Responsibility for a Sustainable Community" for the High School level. Contest started at 9:00 am for the elementary level and 2:00 pm for the high school level. A total of 11 elementary pupils and 10 high school students participated in the said contest.

\* **15<sup>th</sup> Tap and Drill Olympics**



The 15<sup>th</sup> Tap and Drill Olympics was conducted last March 31, 2016 at the back of BCWD's Administration Building, Gov. J.A. Rosales Avenue, Butuan City. A total of 16 contestants participated in the said competition compared to last year's eight (8) contestants.

\* **7<sup>th</sup> Parliamentary Debate**



BCWD conducted its 7<sup>th</sup> Parliamentary Debate for the Tertiary level last September 21, 2016, 8:00 am-5:00 p.m. for the eliminations and semi-final rounds at the Jesus Family Ministries while the championship match was conducted last September 22, 2016, 2:00 p.m. at the same venue. A total of 7 teams coming from 4 colleges and universities participated in the said contest.

\* **29<sup>th</sup> Local Oratorical Contest**



October 20, 2016 marks the 29<sup>th</sup> year of BCWD's Local Oratorical Contest held at Jesus Family Ministries. The theme for this year's Oratorical Contest is **"Think, Drink, Conserve... Reduce Water Use for a Sustainable Water Supply,"** a timely topic which highlights the urgency of having to take part in the conservation of our water resources in the onset of the El Niño phenomenon. A total of 15 schools participated in the said contest.

\* **Quarterly Water Quiz Show**

**1<sup>st</sup> Quarter** - The 1<sup>st</sup> set of Quarterly Water Quiz Show was conducted last January 25, 2016, 9:00 a.m. for the elementary level and 2:00 p.m. for the high school level at the Jesus Family Ministries. A total of 19 elementary and 14 high school students participated in the said contest.

**2<sup>nd</sup> Quarter** - The 2<sup>nd</sup> Quarter Water Quiz Show was conducted last March 29, 2016, 9:00 a.m. for the elementary level and 2:00 p.m. for the high school level at the Jesus Family Ministries. A total of 12 elementary and 9 high school students participated in the said contest.

**3<sup>rd</sup> Quarter** - The 3<sup>rd</sup> set of Quarterly Water Quiz Show was conducted last August 31, 2016, 9:00 a.m. for the elementary level and 2:00 p.m. for the high school level at the Jesus Family Ministries. A total of 26 elementary and 20 high school students participated in the said contest.

**4<sup>th</sup> Quarter** - The 4<sup>th</sup> and final set of Quarterly Water Quiz Show was conducted last October 14, 2016, 9:00 a.m. for the elementary level and 2:00 p.m. for the high school level at the Jesus Family Ministries. A total of 18 elementary and 20 high school students participated in the said contest.



The BCWD Water Quiz Show Grand Championship Match 2016 was conducted last October 28, 2016 at the Jesus Family Ministries, 9:00 am for both the Elementary and Secondary Levels. The quarterly champions were the participants for the Grand Championship Match. John Michael N. Tibay of Rainbow of Angels Learning Center Inc. was the champion for the elementary level while Shaina Delia G. Tomaneng of Philippine Science High School Caraga Campus was declared the champion for the high school level.

## LINKAGES WITH OTHER WATER DISTRICTS

### Aquarius Magazine

The SPRO, Mr. Ramil S. Barquin is the Vice-Chair of the Philippine Association of Water District's (PAWD) Official Publication "Aquarius." He completed editing four (4) issues of the Aquarius Magazine.

### PAWD

Assisted PAWD in the preparation of guidelines and coverage and the conduct of the contest for the National Science and Math Quiz for 2016.

## National Representation

### 5<sup>th</sup> PAWD National Science and Math Quiz

The 5<sup>th</sup> PAWD National Science and Math Quiz was conducted last February 3, 2016 at the Don Bosco Auditorium, Don Bosco Academy, Mabalacat City. A total of six (6) elementary pupils and seven (7) high school students participated in the said contest representing the different regional associations all over the country.

The winners for the 5<sup>th</sup> PAWD National Science and Math Quiz are the following:

#### Elementary Level

**Champion-** John Lester O. Lucero  
Cagayan de Oro City WD / NORMIN-NRMC – REGION X  
Bugo Central Elementary School

**Runner-up-** James L. Marcella  
General Santos Water District / SOCEMWIC  
Dadiangas West Central Elementary School

#### Secondary Level

**Champion-** Anlene Jane Eduava  
Butuan City WD / NORMIN-NRMC – CARAGA Region  
Tungao National High School

**Runner-up-** Earl Hans T. Abellanosa  
Cagayan de Oro City WD / NORMIN-NRMC – REGION X  
Corpus Cristi School



## Regional Representation

### 1<sup>st</sup> Regional Science and Math Quiz

Shaina Delia Tomaneng of Phil. Science High School-Caraga and John Michael Tibay of Rainbow of Angels, representing BCWD, were declared champions (high school and elementary level, respectively) in the NorMin-Natural Resources Management Council (NORMIN-NRMC) Regional Science & Math Quiz held last November 21, 2016 in Bislig City.

## WATER EDUCATION AND ADVOCACY PROJECTS

### Tour to BCWD Facilities

The educational tour to BCWD facilities took place last was last March 15, 2016 as part of the activities conducted during the Water Consciousness Week and BCWD Anniversary. For this year, recipients for the said activity were students from BCSAT. There were a total of 31 participants who joined in the said activity including the some teachers.



## Bisita Eskwela

The Bisita Eskwela for CY 2016 was conducted four (4) times starting from the 1<sup>st</sup> quarter up to 4<sup>th</sup> quarter of the year.

Below are the list of participants and Bisita Eskwela conducted:

### 1<sup>st</sup> Quarter Bisita Eskwela

Participating Schools	No. of Students
<b>Butuan Grace Christian School Elementary</b> <i>January 27, 2016; 9:00 A.M.</i>	40
<b>Butuan Grace Christian School HS</b> <i>January 27, 2016; 9:00 A.M.</i>	18
<b>Alviola Central Elementary School</b> <i>January 27, 2016; 2:00 P.M.</i>	78
<b>Alviola Integrated Secondary School</b> <i>January 27, 2016; 2:00 P.M.</i>	70

### 2<sup>nd</sup> Quarter Bisita Eskwela

Participating Schools	No. of Students
<b>Pedro Duncano Elementary School</b> <i>July 26, 2016; 9:00 A.M.</i>	77
<b>Pedro Duncano National High School</b> <i>July 26, 2016; 9:00 A.M.</i>	66
<b>Cabcabon Elementary School</b> <i>July 26, 2016; 2:00 P.M.</i>	73
<b>Cabcabon Integrated Secondary School</b> <i>July 26, 2016; 2:00 P.M.</i>	64

### 3<sup>rd</sup> Quarter Bisita Eskwela

Participating Schools	No. of Students
<b>Agusan Pequeño Elementary School</b> <i>September 27, 2016; 9:00 A.M.</i>	65
<b>Agusan Pequeño National High School</b> <i>September 27, 2016; 9:00 A.M.</i>	99
<b>Mandacpan Elementary School</b> <i>September 28, 2016; 9:00 A.M.</i>	67
<b>San Vicente National High School</b> <i>September 28, 2016; 2:00 P.M.</i>	73

### 4<sup>th</sup> Quarter Bisita Eskwela

Participating Schools	No. of Students
<b>School of the Morning Star Elementary</b> <i>November 11, 2016; 9:00 A.M.</i>	30
<b>School of the Morning Star High School</b> <i>November 11, 2016; 9:00 A.M.</i>	48
<b>Angelicum Montessori School Elementary</b> <i>November 11, 2016; 2:00 P.M.</i>	63
<b>Angelicum Montessori School High School</b> <i>November 11, 2016; 2:00 P.M.</i>	43

## Water District Week

BCWD in cooperation with the PAWD observed the celebration of Water District Week. For 2016, BCWD conducted the 1<sup>st</sup> ever Community Water Conservation Festival. The celebration started with the conduct of the 1<sup>st</sup> Quarter Water Quiz Show last January 25, 2016 followed by the conduct of the Workshop on the Issues and Concerns of the Taguibo River Watershed Forest Reserve last January 26, 2016. The 3<sup>rd</sup> day of the weeklong celebration was the conduct of the 1<sup>st</sup> Quarter Bisita Eskwela last January 27, 2016. As a culmination of the Water District Week Celebration, BCWD conducted the Community Water Conservation Festival last January 29, 2016 at the Robinson's Place Butuan.



### Festival Booth Exhibit

The BCWD conducted the Booth Exhibit in the morning of January 29, 2016 at the Robinson's Place Butuan Atrium. The Booth Exhibit was a contest for the tertiary level. Each College or University was given an area where they could create a booth depicting the theme or topic provided to them. A total of 5 colleges and/or universities participated in the said activity.



**Film Showing**

The Film Showing showcased the Water District through the documentary depicting the Butuan City Water District and the Taguibo River Watershed Forest Reserve.



The participants were:

Participating Schools	No. of Students
Butuan Christian Community School - Grade School <i>January 29, 2016; 1:00 P.M.</i>	20
Butuan Christian Community School - High School <i>January 29, 2016; 1:00 P.M.</i>	17
La Trinidad Elementary School <i>January 29, 2016; 1:00 P.M.</i>	42

**Festival Variety Show**

To cap off the weeklong celebration, BCWD conducted the Festival Variety Show in the afternoon of January 29, 2016 at the Robinson's Place Butuan Atrium. The Variety Show was intended for secondary schools in Butuan City. For the 1st Variety Show there were a total of four participating schools.



**Watershed Concerns**

**Tree Planting**

Last March 21, 2016, BCWD conducted a Tree Planting activity at the Taguibo River Watershed Forest Reserve.



The Tree Planting activity was conducted as part of the World Water Day celebration as well as the BCWD 42<sup>nd</sup> Anniversary and 15<sup>th</sup> Water Consciousness Week Celebration. The tree planting was conducted at Sitio Mahayahay, Brgy. Anticala with the employees of the BCWD as participants.

**Workshop for TRWFR Stakeholders**

Workshop on the Issues, Concerns, and Problems and Current Projects Implemented in the Taguibo River Watershed Forest Reserve participated in by the different stakeholders of the TRWFR.



The Workshop was conducted last January 26, 2017 at the BCWD Conference Room as part of the Water District Week celebration which is celebrated every last full week of January every year.

Representatives from the different stakeholders of the TRWFR were invited including CSU, FSUU, DENR and EMB. Also, representatives from those living within the watershed were also present.

**Watershed Community Symposia**

**1<sup>st</sup> Watershed Community Symposium**

As part of the celebration of the World Water Day on March 22, 2016 and as part of BCWD's on-going thrust to continuously educate the watershed settlers, it conducted the 1st Watershed Community Symposium last March 22, 2016 at Sitio Mahayahay, Brgy. Anticala.



Topics for the said symposium focused on the livelihood opportunities for those living in the watershed area for products from abaca and bamboo. Speakers from the Department of Trade and Industry and from the EMB were invited during the said activity. Representatives from EMB were: Renato C. Tacubao and Jessa Lou D. Ampatin while representatives from DTI were Ramil J. Leongas and Freedcarmariam D. Gonzaga.

Total number of participants:

Date	Sitio	No. of Participants
March 22, 2016	Sitio Tagkiling and Mahayahay	292

### 2<sup>nd</sup> Watershed Community Symposium

Last July 27-28, 2016, BCWD conducted the Watershed Community Symposium visiting two (2) areas, Sitio Dugyaman and Sitio Mahayahay, respectively.

During the visit, aside from the BCWD staff, other partner agencies also joined, namely:

- Anticala Brgy. Captain Armando Boligol
- DENR-CENRO Nasipit; and
- EMB.



Below is the total number of participants:

Date	Sitio	No. of Participants
July 27, 2016	Sitio Dugyaman	101
July 28, 2016	Sitio Tagkiling	127

### 3<sup>rd</sup> Watershed Community Symposium

Last September 29-30, 2016, BCWD conducted the Watershed Community Symposium visiting two (2) areas, Sitio Mahayahay and Sitio Iyao, respectively.

During the visit, aside from the BCWD staff, other partner agencies also joined, namely:

- Anticala Brgy. Captain Armando Boligol; and
- EMB through Alberto Degamon.



Below is the total number of participants:

Date	Sitio	No. of Participants
September 29, 2016	Sitio Mahayahay	283
September 30, 2016	Sitio Iyao	143

### 4<sup>th</sup> Watershed Community Symposium

For the last quarter of 2016, BCWD visited Sitio Bungadman and AWFPC Members for its Watershed Community Symposium last November 30, 2016.

During the visit, aside from the BCWD staff, other partner agencies also joined, namely:

- Anticala Brgy. Captain Armando Boligol; and
- EMB through Alberto Degamon.



BCWD visited two (2) areas in the span of two days with the following number of participants:

Date	Sitio	No. of Participants
November 30, 2016; 9:00AM	Sitio Bungadman	73
November 30, 2016; 1:00PM	AWFPC	72



## AWFPC Christmas Party and General Assembly

Last December 20, 2016, the AWFPC once again conducted its Christmas Party and General Assembly with a total of 148 in attendance.

During the said activity, BCWD presented the following:

1. NGP Updates; and
2. Result of validation in the AWFPC members' respective NGP areas.

Date	Sitio	No. of Participants
December 20, 2016	AWFPC Members, Sitio Mahayahay Brgy. Anticala	148



## Customer Relations

### Anniversary Give-Aways

The distribution of Anniversary Give-aways was conducted last March 28 and 31, 2016 at the 2<sup>nd</sup> floor lobby of the BCWD Administration Building. Concessionaires who paid their water bill during the abovementioned dates were given free grocery items. The following were the schedule of distribution:

March 28, 2016 - 8:00 am - 12:00 noon  
1:00 pm - 5:00 pm

March 31, 2016 - 8:00 am - 12:00 noon  
1:00 pm - 5:00 pm

There were a total of 2,662 concessionaires who received the grocery items.



### Pamaskong Handog

The 2016 Pamaskong Handog was conducted last December 19-22, 2016 at the 2<sup>nd</sup> floor lobby of the BCWD Administration Building. Assorted items were given to paying customers within the four (4) day period such as soy sauce, vinegar, sugar, laundry detergent, cooking oil, noodles, coffee, dish washing liquid and a lot more.



Date	Total No. Distributed
Concessionaires for 4 days (December 19-22, 2016)	3,162

## OTHER ACTIVITIES

### Briefing and Site Visit to the PPP Project

A total of 5 sets of Briefings and Site Visits were conducted in CY 2016.

Below are the list of Briefing and Site Visit to the PPP Project conducted:

#### Participants and Date of Visit

**CFC Handmaids of the Lord** *February 20, 2016*

**Iriga Water District** *July 1, 2016*

**Rotary Club of Butuan and Butuan Chinese Chamber of Commerce** *July 2, 2016*

**Selected Brgy. Officials** *July 9, 2016*

**Selected FSUU Students** *August 27, 2016*



## 43<sup>rd</sup> BCWD Anniversary

Produced 450 Anniversary T-Shirts for employees and concessionaires and 233 sportsfest t-shirt.

- Activities conducted during the anniversary included:

- Mass Feeding and Distribution of School Supplies
- Sportsfest
- Bloodletting
- Visit to Por Cristo
- Visit to Balay Silonganan
- Culminating Activity and Awards Night



**Stability and continuity** – two words to describe BCWD in 2016. An important indicator of stability is the continuity of policies under a familiar set of policymakers and management who implements such policies. The BOD passed significant policies in support of the Management’s basic duties, especially those involving the Operation and Management, Personnel Welfare, Community, and Environment.

After the hardships experienced in 2015, BCWD was able to stabilize its operations and continued its mandate of delivering potable and safe drinking water to the community.

BCWD was able to serve over 300,000 individuals through its more than 43,000 connections. This generated a 12.61% increase in net income as compared to that of 2015. Assets grew by .71%. Thus, BCWD’s performance in 2016 was generally good.

With the stability gained in 2016, it seems that all the favorable factors are present to continue the good performance this 2017, which include stable financial position, and the long awaited Public Private Partnership (PPP) Bulk Water Project will finally be operational. Indeed, BCWD’s time to really shine is now.

# Adopt a Forest

Project of

**Butuan City Water District**  
in **Taguibo River Forest Reserve**

**Donors**

- Rotary Club of Makati Salcedo and Butuan North (1 Hectare)
- Phoenix Foundation Inc. (5 Hectares)
- Atty. and Mrs. Jehremiah Asis (1 Hectare)
- Butuan Doctors Hospital and Colleges Inc. (10 Hectares)
- Couples for Christ Global Mission Foundation (1 Hectare)
- CFC School of the Morning Star (1 Hectare)
- Crispin Young and Family (1 Hectare)
- Filipino Chinese Lourdes Catholic Community (1 Hectare)

- Mr. and Mrs. Terence Yu and YHotel (1 Hectare)
- Happy Enterprises and Resources Inc. (1 Hectare)
- Mr. and Mrs. Rudy Tiu (1 Hectare)
- Kimson Commercial (1 Hectare)
- Ivory Charities (1 Hectare)
- C' Zarles (Construction and Supply)(1 Hectare)



For more **Information,**  
**visit** Butuan City Water District  
@ Gov. J.A. Rosales Ave., Butuan City

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