"Water, water everywhere but not a drop to drink"



- Of all the water on the earth, humans can use only about three tenths of a percent of this water. Such usable water is found in groundwater aquifers, rivers, and freshwater lakes.
- Three-quarters of the Earth's surface is covered with water, yet 98 percent is salt water and not fit for consumption. Less than one percent of all the water on Earth is freshwater available for human consumption.

► Water is blue diamond

- ► Water is a finite resource
- ► Water is life

Water Dynamics



Water Balance



In Republic of Cote' d' Ivoire, West Africa



WOMEN SECURE CLEAN WATER IN CÔTE D'IVOIRE TO SAVE COMMUNITY'S HEALTH

Water from the marsh in Anyama caused outbreaks of bilharziasis among residents. Photo by SUNY for USAID This photograph tells a thousand stories about sanitation ... about waterways... about political will... What should be done with this?



The creek is one big toilet



The creek is one big garbage pit...



Illegal settlers abound in creeks and rivers...





Key dates in the reform of the water and sanitation sector in the Philippines Year Event Creation of the National Waterworks and Sewerage Authority (NAWASA). 1955 Republic Act 6234: Transformed NAWASA into the Metropolitan Waterworks and Sewerage 1971 System (MWSS) where it was responsible for service provision in Metro Manila, whereas other cities and towns were transferred back to local governments. Creation of the Local Water Utilities Administration (LWUA) and the Water District (WD) Model through Presidential Decree 198. LWUA 1973 was capitalized to provide financial, technical and institutional assistance to urban water service providers. Creation of the National Water Resources Council attached to the Department of Public 1974 Works, Transportation and Communications (later renamed the National Water Resources Board) to coordinate and integrate water resources development activities.

Key dates in the reform of the water and sanitation sector in the Philippines

- 1975 Presidential Decree 856 (the Sanitation Code of the Philippines) provided for the enforcement of various sanitation policies including standards for water supply, sanitary facilities, sewerage and sewage management, food processing and servicing, abattoirs, markets, funeral parlors, and industrial hygiene.
- 1976 Presidential Decree 1067 (Water Code of the Philippines) on resource regulation and mandated the NWRB as the government agency responsible for the implementation of the Water Code.
- 1978Barangay Water Projects. Creation of the DILG Water Supply and SanitationProject Management Office (DILG WSSPMO).

Key dates in the reform of the water and sanitation sector in the Philippines

- 1980 Creation of the Rural Waterworks Development Corporation (RWDC) responsible for areas where neither LWUA nor MWSS operates.
- 1987 LWUA took over the work of the RWDC.
- 1991 Republic Act 7160 (The Local Government Code) provided for the decentralization of basic service provision and barangays, municipalities, cities and provinces were authorized to finance, operate and maintain their own water supply systems.
- 1995 Republic Act 8041 (National Water Crisis Act) provided the legal framework for the privatization of MWSS.
- 1997 25-years concession agreements were awarded the by MWSS to Maynilad Water Services, Inc (for the west zone) and to the Manila Water Company Inc (for the East Zone).

_	Key dates in the reform of the water and sanitation sector in the Philippines						
	2004	Republic Act 9275 (Philippine Clean Water Act) that mandated DPWH to prepare a					
	and Septage Management P	'rogram.					
	2005	Presidential Priority Program on Water (P3W) was approved and implemented by DPWH					
		and NAPC through the adhoc Water and Sanitation Co-ordinating Office.					
	2009- 2010 Multi stakeho	Ider preparation of the Philippine Water Supply Roadmap. 2nd edition,					
		Multi stakeholder preparation of the Philippine Sustainable Sanitation Roadmap.					
	2011	INFRACOM approved the National Sewerage and Septage Management Plan.					
	2011	SALINTUBIG Program (for the 'waterless' municipalities) replaced the P3W; is jointly					
		implemented by the DOH, NAPC, DILG and LWUA.					
	2011	Executive Order 62. Creation of the Inter-Agency Committee on Water under the					
		leadership of the DPWH					

National Sewerage

WSP and WORLD BANK GROUP, Service Delivery Assessment

Water Supply and Sanitation in the Philippines Turning Finance into Services for the Future

In order to reach national targets of universal access to water supply by 2025 and sanitation by 2028, the needed average expenditure are

US\$803 million per year - water supply

US\$619 million per year - sanitation

plus

US\$210 million per year - 0 & M of current and

future water supply infrastructure

US\$132 million per year – 0 & M for sanitation.

Priority actions recommended to resolve the challenges highlighted by this Service Delivery Assessment:

• Implement new institutional arrangements including an expanded role for the National Water Resources Board as the sector regulator and its transition to a National Water Resources Management Office, and the establishment of a dedicated Water and Sanitation Unit as a lead sector agency (hosting department/agency to be identified through institutional review).

• Improve coordination mechanisms between actors at provincial and municipal levels.

• Establish a national capacity building programme, especially to address rural subsectors, by consolidating various initiatives already in place including the regional capacity building hubs established under the DILG.

• Harmonise data collection systems, standardise the definition of terms and develop a coherent sector monitoring framework.

• Establish a collective platform for a multi-stakeholder review process to monitor subsector performance (for example Joint Annual Sector Reviews).



Bacolod City Water District was created by City Council Resolution No. 4460 in 1973 operating as a quasi-public entity and as a government-owned and controlled corporation (GOCC) in 1992 by virtue of the Supreme Court decision, retaining PD 198 as its original charter. As a GOCC, it does not receive any subsidy from the National or Local Government and is governed by the regulations of the Civil Service Commission, DBM and COA.



OUR VISION

A committed provider of accessible, potable and affordable water and wastewater management system with utmost concern to the people and the environment by 2021.

OUR MISSION

We touch lives by committing to provide our stakeholders with quality and reliable water and wastewater services through effective and efficient stewardship of resources we manage.



CORE VALUES Loyalty Integrity Vigilance **Excellence Servanthood**

OUR GOALS

- Develop/Acquire additional water supply/sources to improve system pressure and expand distribution system
- Protect, conserve and develop in a sustainable way, the watershed and water resources
- Empower the adequately compensated employees
- Excellent customer satisfaction
- Maintain open and positive relation with LGU and other agencies
- Provide wastewater management system to Bacolod City
- Maintain financial viability

ORGANIZATIONAL STRUCTURE



BOARD OF DIRECTORS



ATTY. LORENDO K. DILAG Chairman (Education Sector)

The Board of Directors is the policy making body of the District.

Members of the Board are appointed by the City Mayor through nominations coming from five (5) sectors namely education, business, women, civic and professional sector. Each member has a fixed term of six (6) years.



MS. CECELIA A. HENARES (Business Sector)





ENGR. DAVID M. VILLANUEVA (Civic Sector)

Treasurer



MS. MONA DIA G. JARDIN (Women Sector)

Sector)

Corporate Secretary



Member (Professional



ATTY. JULIANA B. CARBON, CSEE IV General Manager

A lawyer and accountant by profession and a holder of Masters in Business Administration Degree and 3rd Level Civil Service Eligibility.

She rose from the ranks and her 32 years experience in the water industry backed her competence in leading and managing the water district.



ENGR. SAMUEL S. PENADO, CSEE IV Assistant General Manager for Administration

A Civil Engineer by profession and a holder of Masters in Business Administration Degree and 3rd level Civil Service Eligibility.

His 30 years of experience in the water industry was spent mostly in the management of the operations side of BACIWA and served as an effective tool as he shifted his management skills to the administration side in 2013.



ENGR. JENELYN Y. GEMORA Manager for Operations Assistant General

A Civil Engineer by profession and took her post graduate degree in Groundwater Hydrology at the UNESCO-IHE in Delft, The Netherlands.

She also took technical and management short courses abroad to equip her of skills necessary to lead the operations of the District in addition to her 27 years of experience in the water industry.

FINANCE Department is responsible for the recording and summarizing of financial transactions, preparation of Financial Reports and Inventory Management. Also responsible for the Budget Preparation and assist in allocation and distribution of budgets as wells as monitoring the budget performance.



Kristine Polana, CPA Department Manager



Lourdes Jarder Mgr., Treasury & Budget Div.



Janice Juarez OIC, General Accounting Div.



Jonah Sarcepuedes Senior Cashier

ADMINISTRATIVE Department is

responsible for general service, and collection & disbursement of funds. It is incharge of the procurement; assists in the implementation of special projects program. Also responsible for the recruitment and retention of highly qualified employees for the district.



Atty., Diana Fe Tan, CPA Officer In-Charge



Mary Molly Mae Rosadia OIC, Human Resource Div.



Roberto Quebrar Mgr., Property & Matls. Mgt. Div.



Ivan Magbanua OIC, General Services Div.

COMMERCIAL SERVICES Department

provides customer services to the concessionaire/client. Responsible for billing and collection of water sales, inspection and investigation of water connection, & information disemination to consumers.

PRODUCTION Department is responsible for the water generation and storage operations, disinfection and monitoring of water quality. Incharge for the pumping facilities maintenance management, gathering and keeping of well data and analysis.



Ma. Fe Jarder Department Manager



Engr. Gino Amantillo Department Manager



Jemila Gemarino OIC, Customer Care Div.



Engr. Nelson Bradas, Mgr., Water Production Div.



Jose Adeva OIC, Billings & Account Div.



Daisy Desengano, RMT Mgr. Water Quality Div.



Engr. Sandro Jesus Sales OIC, Electro-Mech'l. Div.

Engineering Department is responsible for activities in the preparation of feasibility studies, surveys, planning and design of expansion, rehabilitation and upgrading of the District's water system, resources and facilities. Implements construction and supervision of contracted and inhouse projects, Investigation and installation of new service connection. Responsible for the environment and watershed protection, and sanitation systems of the District.

<u>Maintenance Department</u> is responsible for attending to the repairs and maintenance of water transmission and distribution lines

and related appurtenances.

(NRW) .

Performs testing and maintenance of water meters. Monitors and implements programs for the reduction of Non-Revenue Water



Engr. Randolf Guintos OIC, Engineering Dept.



Engr. Rommel Paredes Department Manager



Engr. Iden Villaruz OIC, Planning & Design Div.



Engr. Ian Roy Llamas, Mgr.,Construction Div.



Vacant Mgr., EWRSSM Div.



Engr. Roberto Reyes Mgr., Line & Appurtenance Maint. Div.



Engr. John Arlan Canatoy Mgr., NRW Div.



Vacant Water Distribution & Restoration Div.

Management & Operations Audit Division (MOAD) provides support and internal control to the entire operation and administration of the District based on existing laws, procedures, regulations and policies.

Corporate Planning Unit collates and monitors, plans, updates and recommends programs for the entire operation of the District in line with its Mission and Vision.

Legal Office provides legal assistance and services to the management in the performance of its mandate, policies, projects and programs.

Corporate Relations and External Affairs (CREA) handles the corporate social responsibilities of the District to maintain good working relationship with partners, stakeholders and various agencies and groups.



Marnell Demonteverde, CPA OIC, MOAD



Vacant Senior Corporate Planning Specialist



Vacant Corporate Attorney *Vacant Corporate Relations & External Affairs*

MANPOWER RESOURCES (as of December 2017)

Departments	Total No. of Positions per DBM approved POP	Filled Up	Casual	Job Order
ADMINISTRATION (Board & Management, Administrative, Commercial and Finance)	184	125	18	52
OPERATION (Engineering, Maintenance, Production)	180	121	46 (17 are project- based)	162 (26 are project- based)
Total	364	246	64	214

staff	Productivity Index :
	Permanent + Casual – 1:17
	Permanent + Job Order – 1:99

Industry Standard 1:120 1:150



HISTORY

YULO WATER WORKS (NAWASA) - 1925



PHASE-I IMPROVEMENT & DEVELOPMENT - 1976



BACIWA FUNDED PROJECT - 1984



PHASE-II IMPROVEMENT & DEVELOPMENT - 1990



PHASE-III IMPROVEMENT & DEVELOPMENT - 2000



6,500 cu.m. Ground Reservoir w/ Booster Station

SERVICE AREA COVERAGE



Consumers are paying for the following services:



- Development of water sources
- Delivery of treated water to their homes/businesses through pipelines
- Maintenance of water system
 - Source facilities
 - Storage facilities
 - Pipelines and appurtenances
- Administrative and manpower services

Water is free. It is the service of bringing it to the individual households that is being paid for by the consumers

SOURCES & FACILITIES

Water production is mainly sourced from groundwater through springs and deep wells. Distribution is through direct pumping and by fill and draw utilization of reservoirs.





- Springs (13%)
- Deepwells (87%)
- Ave. Prod'n per month
- Ground Reservoirs
- Elevated Tanks
- Total Storage Capacity
- Pipelines
- Fire Hydrants
- Generator sets

- 2 spring clusters (Bocal-Bocal & Boro-Boro)
- 57 (55 Operational)
- 2.04 M cu.m.
- 5
- 10
- 23,987 cu.m.
- 653 km
- 139
- 26

CONSUMER PROFILE

Distribution of consumer type based on active and billed number of connections as of December 2017.



► Total no. of active connections – 52,804

- ► Total no. of in-active connections 16,912
- ▶ % of Total Population: (1 SC = 1.1 Hh)
 - ► (active conn.) 56%
 - ► (active + in-active) -73%
- ► Average consumption per month 25 cu.m

Php 535.75

► Average rate per cu.m. – Php29.58

TARIFF

The present water rates has not increased since 2009. There is a pending request to LWUA for water rate increase and shall be implemented upon approval.

Classification	Size	Minimum	Commodity Charges					
		Charge	11-30	21-30	31-50	51-70	71-100	101-up
	1/2"	208.00	21.40	22.75	25.80	30.05	35.50	42.70
	3/4"	332.80	21.40	22.75	25.80	30.05	35.50	42.70
Residential/	1"	665.60	21.40	22.75	25.80	30.05	35.50	42.70
Government	1 1/2"	1,664.00	21.40	22.75	25.80	30.05	35.50	42.70
	2"	4,160.00	21.40	22.75	25.80	30.05	35.50	42.70
	3"	7,488.00	21.40	22.75	25.80	30.05	35.50	42.70
	4"	14,976.00	21.40	22.75	25.80	30.05	35.50	42.70
	1/2"	416.00	42.80	45.50	51.60	60.10	71.00	85.40
	3/4"	665.60	42.80	45.50	51.60	60.10	71.00	85.40
Commercial/	1"	1,331.20	42.80	45.50	51.60	60.10	71.00	85.40
Industrial	1 1/2"	3,328.00	42.80	45.50	51.60	60.10	71.00	85.40
	2"	8,320.00	42.80	45.50	51.60	60.10	71.00	85.40
	3"	14,976.00	42.80	45.50	51.60	60.10	71.00	85.40
	4"	29,952.00	42.80	45.50	51.60	60.10	71.00	85.40
Bulk/Wholesale	= Php24.8	35/cu m						

Consumer's Comparative Budget on Water

BACIWA : P400-P600 per month



Water Vendors: P800 – P1,500 per month



LEVEL OF SERVICE

Historical Supply Vs. Demand Graph (2000-2017)



WATER AVAILABILITY MAP (December 2017)



NON-REVENUE WATER (NRW)

Non Revenue Water is defined as water produced by the water utility, but which is not billed



Daily Supply Vs. Demand as of December – 2017 in MLD



Projected Supply vs. Demand (2017-2021)



SERVICE IMPROVEMENT PROJECTS AND PROGRAMS



5 Year CAPEX Requirement to address existing concerns (based on the 5-vear Strategic Plan) Php233 Million 2017 2018 Php444 Million • 2019 Php438 Million 2020 Php625 Million 2021 Php312 Million TOTAL Php2.042 Billion •

5 Year CAPEX Requirement to address existing concerns (based on the 5-year Business Plan)

2020	 Php112 Million
2020	 Php176 Million

FINANCIAL POSITION

BACOLOD CITY WATER DISTRICT TOTAL RECEIPTS AND DISBURSEMENTS

For the Year 2017



BACOLOD CITY WATER DISTRICT OPERATING REVENUES AND EXPENSES For the Year 2017



INCOME STATEMENT (2017)

REVENUE		
	NET WATER SALES	479,834,974.26
	OTHER INCOME	39,235,796.91
TOTAL		519,070,771.17
EXPENSES		
	PERSONNEL SERVICES	164,197,364.06
	MAINTENANCE AND OTHER OPERATING EXPENSES	203,751,529.05
	FINANCIAL EXPENSES	18,790,856.78
TOTAL		386,739,749.89
NET INCOME		132,331,021.28

DISTRIBUTION OF COLLECTION

DISTRIBUTION OF EXPENSES





ASSETS vs. LIABILITIES

ASSE	TS	
	CASH AND CASH EQUIVALENTS	278,617,138.79
	ACCOUNTS RECEIVABLE, NET	125,268,042.78
	RECEIVABLES	4,806579.34
	INVENTORIES	29,830,952.32
	PREPAYMENTS	2,303,020.80
	OTHER CURRENT ASSETS	223,843.52
	INVESTMENTS	2,216,797.97
	PROPERTY, PLANT & EQUIPMENT	208,421,484.26
	ARTESIAN WELL, RESERVOIR, PUMPING STATION & CONDUITS	503,483,917.36
TOTA	L	1,155,171,777.14
LIAB	ILITIES & EQUITY	
	PAYABLES	4,229,150.51
	INTER-AGENCY PAYABLE	8,892,884.64
	GUARANTY DEPOSIT PAYABLE	31,333,679.98
	OTHER LIABILITIES	2,743,983.54
	LOANS PAYABLE	444,349,664.40
	DEFERRED CREDITS	1,258,944.96
	TOTAL EQUITY	662,363,469.11
TOTA		1,115,171,777.14

			YTD	LWUA Industry Ave. (based on criteria for PBB)
FINAN				
	A - Financial Position			
23	Working capital (Current Asset - Current Liabilities)	Php	343,849,879	enough to maintain a good current ratio
24	Current Ratio (Current Asset/Current Liabilities)		9.34:1	1:1
25	Debt to Equity Ratio (Total Liabilities/Total Equity)		0.74:1	8.81:1
26	Cash Ratio [(Cash + Cash Equivalent)/Total Current Liabilities]		5.90	none
27	Operating Ratio (Operating Expense/Operating Revenue)		76%	75%
	B - Collection Effort			
28	Collection Efficiency Ratio (Total Collections/(Accounts Receivables beginning + Water Sales)		77%	90%
20	C - Promability		200/	100/
29			20%	10%
30	Fixed Asset Turn-over Ratio (Revenue/Total Property, Plant and Equipment)		71%	8%
	D - Personnel Management			
31	Operating Performance: Revenue per employee (including JO)	Php	966,434.66	none
32	Staff Productivity Index (Permanent & Casual Employees Only)		1:172	1:120
33	Staff Productivity Index (Including Job Order)		1:100	1:150
34	Personnel Cost Ratio (Total Personnel Cost/(Operating Revenue x 75%)		43%	35% of the 75% of Operating Revenue



TAKING CARE OF THE ENVIRONMENT

RIDGE TO REEF APPROACH ENVIRONMENTAL MANAGEMENT

Environmental protection programs and initiatives of the Districts adopt the "Ridge to Reef" holistic approach to ensure sustainability of present and future water resources as to quantity and quality.



With limited internally generated fund to be used for the watershed protection and development programs, additional fund coming from the Production Assessment Charge contributed by business establishments is being set aside purposely for environmental programs that consist of:.

- Upland reforestation and regeneration
- ► Forest Protection
- ► River clean-ups
- Mangrove reforestation and coastal clean-ups
- ► Information, education and awareness campaigns
- ► Watershed and coastal community development and livelihood program

BACIWA is a recipient of various awards from the Province of Negros Occidental and LWUA on the national level, and 10M in10 Movement in recognition of its initiatives for the sustainable management of the water resources, and for the protection of the watershed and its related ecosystem.

SEPTAGE MANAGEMENT PROGRAM

2017-2018

Implementation of Septage Management Project

SEPTIC SEPTIC COMBINED SEWER-DRAINAGE TANK Sewage & **Overflow** Septage **System** Treatment during Plant rainy season **Class C Treated** Plant water effluent

2020 to 2025 :

 \swarrow

Combined Sewer System w/ Septic Tank Mgt

LGU to identify and provide lot/property for the Septage Treatment Facility and propose some amendments to the Septage Ordinance 4



appreciation of the urban sanitation situation. It supports city service delivery assessment, political analysis, and prognosis for change. This helps identify the institutional impediments to improving fecal sludge management. It also includes a service delivery action framework that sets out recommendations on appropriate actions depending on the current status of fecal sludge management and its determinants in the city.

A new contribution is the Urban Sanitation Status Index, which assists in the spatial prioritization across a city. The work is presented in a summary report, which outlines how to apply the tools, with a compilation of the data collection instruments, sample terms of reference for consultants, and case studies.

http://www.worldbank.org/en/topic/sanitation/brief/ fecal-sludge-management-tools









COMMUNITY RELATIONS

BLOOD LETTING & MEDICAL MISSIONS

GIFT GIVING & FEEDING













Film Showing & Brigada Eskwela















ADVOCACY & AWARENESS CAMPAIGNS

FUN RUNS FOR A CAUSE



















The path out of poverty begins with clean water and sanitation