

Water Utility: Muñoz Water District (Muñoz WD)

Muñoz City, Nueva Ecija, Philippines

Contact Details: General Manager: Rogelio, L. Miguel
E. Bayuga Street, Muñoz City, Nueva Ecija

Tel 1: (044) 456 0599 Tel 2:
Fax: (044) 456 0599 Email: munozwd0@lycos.com

Services Provided: Piped water, , , ,

Utility Type: , Government with separate reporting for WS&S, , , , ,

Private Sector Involvement: None, , , , ,

Source of Raw Water: , , , Groundwater,

Treatment Method: , Disinfection, , , , ,

Water Supply System description:

Production capacity = 2,372 m3/day		Distribution network = 23 km		Storage capacity = 273 m3	
Area (sq km)		Area of Responsibility		Present Service Area	
Population		53,000		19,307	
No. of Towns = 8		Population served = 14,681			
<u>No. of connections:</u>		Domestic (Households) = 2,255		Non Domestic = 305	
		Typical service connection length = m		Total Connections = 2,560	
				Connections with operating meter = 2,560	
System input volumes:		Produced by W.U. = 0.8 million m3/year		Bulk water imported = zero	
Water consumption:		Metered cons. = 0.7 million m3/year		% Unmetered cons. = N/A	
Water Sales:		Domestic = 0.6 million m3/year		Non Domestic = 0.1 million m3/year	
				Bulk Water sales = zero	
<u>System Performance:</u>		No. of connections with intermittent supply = N/A		Typical duration of supply = 24.0 hours / day	
		No. of pipe breaks in distribution system = N/A		Typical water pressure in mains = N/A	
Chlorine Residuals:		Tests required = N/A		Tests carried out = N/A	
				Tests passed = N/A	

Human Resources (Staff)

<u>Type of employment:</u> Permanent staff: salaried Government employees, , , , ,					
<u>No. of staff (FTE):</u>		Corporate Services = 10		Water Supply = 10	
				Other = zero	
				Total = 20	
<u>Staff Training:</u>		No. Trained = N/A		Training days = N/A	
				Training costs = N/A	

Customer information

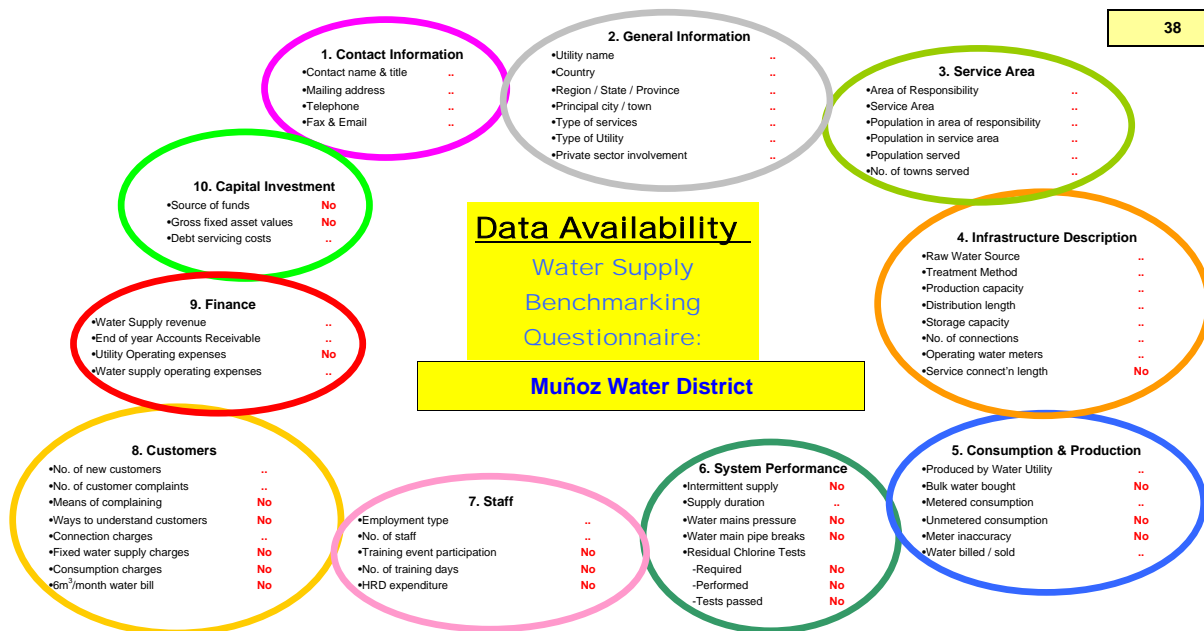
Customer interaction:		New connections = 113 / year		Customer complaints = 238 / year	
Complaint method: , , , ,					
Understanding customers by: , , , ,					

Charges & Fees

<u>Typical connection charge:</u>		Domestic = 2,300PHP / conn.		Non Domestic = N/A	
		(41 US\$ / conn.)		N/A	
<u>Fixed water charge:</u>		Domestic = N/A		Non Domestic = N/A	
		N/A		Bulk water sales = N/A	
		N/A		N/A	
<u>Water consumption tariff</u> (typical of all towns and in each category):					
		Tariff Block 1		Tariff Block 2	
		Tariff Block 3		Tariff Block 4	
Domestic	From - To (m ³)				
	Price (PHP / m3)				
	(US\$ / m ³)				
Non Domestic	From - To (m ³)				
	Price (PHP / m3)				
	(US\$ / m ³)				
Bulk Water	From - To (m ³)				
	Price (PHP / m3)				
	(US\$ / m ³)				
		Water bill for household consuming 6 m ³ /month =		N/A	
				N/A	

Finances

					Year end Accounts		
<u>Revenue:</u>		Water Sales		Other water related		Subsidies & grants	
		Total				Receivable	
PHP / year		12,100,438		zero		zero	
US\$ / year		\$216,776		zero		zero	
						\$15,924	
<u>Operating Expenses:</u>		Water supply		Other services		Company Overhead	
		Total					
PHP / year		zero		zero		zero	
US\$ / year		zero		zero		zero	
						\$157,361	
<u>Water Supply Operating breakup:</u>		Labor		Electricity		Chemicals & materials	
		Contracted out		Other expenses			
PHP / year		3,047,148		1,181,057		786,987	
US\$ / year		\$54,589		\$21,158		\$14,099	
						zero	
						\$3,768,702	
						\$67,515	
<u>Investment funds source:</u> , , , , ,							
<u>Fixed Assets value:</u>		Water supply		Other services		Company Overhead	
		Total				Debt Servicing Costs	
PHP		zero		zero		zero	
US\$		zero		zero		zero	
						19,352,200	
						\$346,689	
						1,478,338	
						\$26,484	



Calculation of Overall Performance Indicator (OPI)

Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	76.0%	(22 / 45)
Meter coverage (% with operating water meter)	100.0%	(1 / 46)
Customer complaints / 1000 connections	93	(20 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	100.0%	(1 / 47)
Residual Chlorine tests passed (%)	#N/A	
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	#N/A	

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Overall Performance Indicator (OPI) = - 0.01
 Number of Standardized Indicators available = 8
 Overall Ranking = (24 / 47)

Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	7.8	(23 / 38)
Investment in staff training (days / staff)	#N/A	
Ave. cost of employment / staff (% of per capita GNI)	253%	(16 / 37)

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	1.38	(12 / 43)
Unit water cost (US\$ / m ³ of system input)	\$0.20	(36 / 43)
Water system asset value / Prod'n capacity (US\$ / m ³ /day)	#N/A	
Debt servicing ratio (% of total operating revenue)		

Financial Indicators: Annual expenses & revenue

Operating Cost Coverage		Expenses	
Operating Cost Coverage (water sales only)	1.38	Overhead expenses / Total Operating expenses ratio	#N/A
Operating Cost Coverage (total revenue)	1.38	Labour costs / Water operating expenses	#N/A
		Electricity costs / Water operating expenses	#N/A
		Chemical & other materials costs / Water operating expenses	#N/A
		Contracted out services costs / Water operating expenses	#N/A
Revenue		Unit water cost	(US\$ / m ³ of metered cons.) 0.22
Water sales revenue / Total revenue ratio	1.00		(US\$ / m ³ of system input) 0.20
Subsidies & Grants / Total revenue ratio	0.00		
Revenue Collection period (months)	0.88	Debt servicing ratio (% of total operating revenue)	12.2%
Unit water price - ave. (US\$ / m ³ of metered cons.)	0.30		

Fixed Assets

Corporate Fixed Assets / Total Fixed Assets	#N/A
Water system asset values	
Asset value / Total water related assets	#N/A
Asset value / Prod'n capacity (US\$ / m ³ /day)	#N/A
Asset value / pipe length (US\$ / m. pipe)	#N/A
Asset value / Customer (US\$ / conn.)	#N/A

System Input

Production capacity utilization (%)	91%
Bulk water imported (% of total system input)	0%
System Input Rate (litres/person/day)	147
(m ³ /connection/month)	26.0
System Input / Distribution ratio (m ³ /day per km pipe)	92.0
System Input / Storage ratio (m ³ /day per m ³ storage)	7.9
Supply Continuity (% customers with continuous supply)	100%
Supply Continuity (% of time water available)	100%

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OPI Ranking = 24 / 47

Human Resource Indicators

Human Resource Utilisation		Human Resource Development	
Overhead staff ratio (% of total FTE staff)	50%	Staff Training participation rate (% staff)	#N/A
Water supply staff ratio (% of total FTE staff)	50%	Staff Training duration rate (days / staff)	#N/A
Total water related staff / 1000 connections	7.80	Investment in staff training (% of direct labour costs)	#N/A
Direct water supply staff		Investment in staff training (% of total operating costs)	#N/A
Staff / 1000 connections	3.90	Human Resources Costs	
Staff / 1000 m ³ /day system input	4.60	Ave. cost of employment / staff (% of per capita GNI)	2.53
Staff / 100 km of pipework	42.60	Contracting out services / in-house Labour costs ratio	#N/A

Distribution

Distribution / customer (m. pipe per connection)	9.2
Storage / customer (m ³ per connection)	0.10
Residual Chlorine	
Sampling compliance (%)	#N/A
Tests passed (%)	#N/A
Non Revenue Water (UFW)	
% of System Input	7%
m ³ / km / day	6.1
m ³ / connection / day	0.06
NRW adjusted for continuous supply (% of System Input)	#N/A
Unbilled Authorized & Unauthorized Cons. (% of metered cons.)	#N/A
Unmetered cons. due to meter inaccuracies (% of metered cons.)	#N/A
Total Unmetered Consumption (% of metered cons.)	#N/A
Infrastructure Leakage Index [ILI]	#N/A
Mains failures ratio (breaks / km pipe / year)	0.00

Water consumption

Bulk water exported (% of total metered cons.)	0%
Average domestic water charges (% of per capita GNI)	1%
Metered consumption rate	
- Domestic (litres/person/day)	117
- Total Cons. (litres/person/day)	137
	(m ³ /conn/month)
	24
Total consumption - metered & unmetered	
	(litres/person/day)
	#N/A
	(m ³ /conn/month)
	#N/A
Domestic share of total metered consumption (%)	86%
Non Domestic share of total metered consumption (%)	15%

Demography

Average town / city size (persons / town)	6,625
Population density in area of responsibility (persons/sq.km)	2,587
Population density in existing service area (persons/sq.km)	1,431
Average Household size (persons / domestic connection)	7
Customer Interactions	
Customer complaints / 1000 connections	93

Connections

Service Coverage in area of responsibility (%)	28%
Service Coverage in existing service area (%)	76%
Domestic / Non-Domestic connections ratio	7.4
Domestic / Non-Domestic consumption rate ratio	5.9
New connection growth rate (% / year)	4%
New domestic connection cost (US\$ / connection)	41
New domestic connections (% of per capita GNI)	1%
Meter coverage (% with operating water meter)	100%
Billed unmetered consumption (% of metered cons.)	0%

Water Sales & Production Information

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Water Production
785,555 m3/year
100% of Water Input

Bulk Water Import
0 m3/year
0% of Water Input

Total Water Input
785,555 m3/year
65,463 m3/mth

Unaccounted for Water (UFW)
7% of Water Input

Adjusted UFW for 24/7 supply
#N/A

Metered Water Consumption
61,100 m3/mth

Domestic
52,245 m3/mth

Non Domestic
8,855 m3/mth

Bulk Water Sales
0 m3/mth

Water Connections = 2,255
X
23.2 m3/mth/conn

Water Connections = 305
X
29.0 m3/mth/conn

Unmetered Consumption
#N/A
#N/A

Unbilled Authorised & Unauthorized Consumption
#N/A

Meter inaccuracy
#N/A

Total Unmetered =
#N/A

Distribution System water losses (Current Annual Real Losses (CARL))
#N/A
#N/A
#N/A

Hours / month offline
0.0 hours/month
(Adjusted by)

CARL for 24/7 (continuous) supply
#N/A

Unavoidable Annual Real Losses (UARL)
#N/A
X

Infrastructure Leakage Index (ILI)
#N/A

Length of distribution mains
23 km

Water Connections
#N/A
#N/A

Average Pressure
#N/A