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# Maynilad-PI System Towards Better Water Management



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## Maynilad Water Services, Inc. (Maynilad)

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# Company Background

- Largest water concessionaire in terms of customer base in the Philippines
- Has exclusive rights to provide water and sewerage services in the West Zone of the greater Metro Manila area until year 2037
- Current owners DMCI- MPIC Water Company, Inc. took over the company on January 24, 2007
- DMCI- MPIC Water Company, Inc. is a joint venture between Metro Pacific Investments Corp. and DMCI Holdings Inc.

# Operations Snapshot

Service Area: 540 sq km

Coverage: 17 cities and municipalities  
in Metro Manila and Cavite

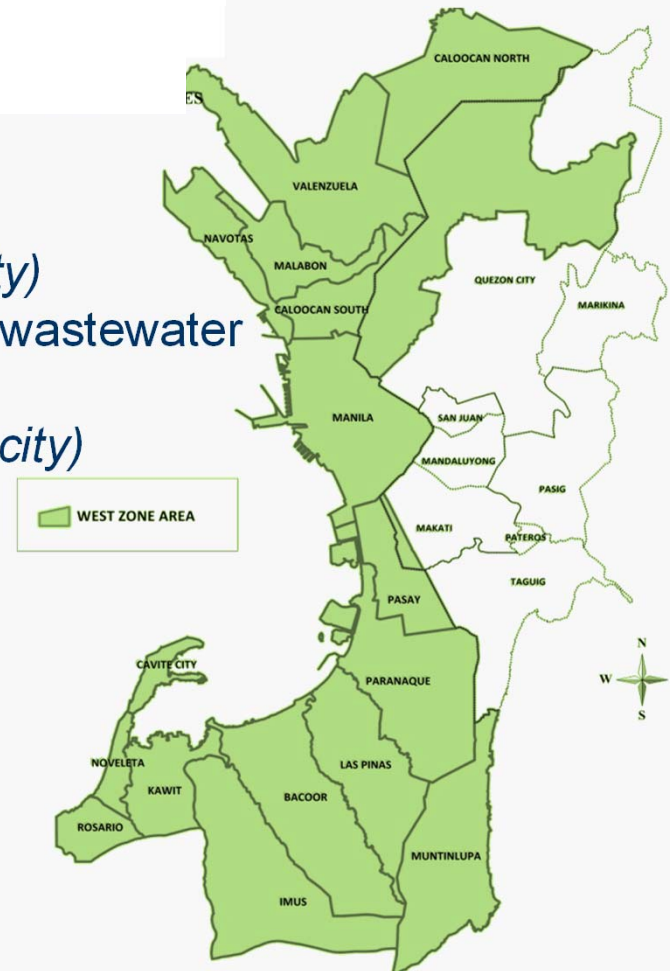
Key facilities: 3 water treatment plants  
(2500 MLD combined capacity)

3 wastewater  
treatment plants  
(470,000 cmd combined capacity)

17 pumping stations  
19 reservoirs  
13 mini-boosters  
22 on-line boosters

Distribution

infrastructure: Over 480 km sewer line  
6,962 km water pipeline



# TELEMETRY

Provide vital information for optimizing  
Maynilad's water production, water  
distribution & water supply  
management and NRW reduction

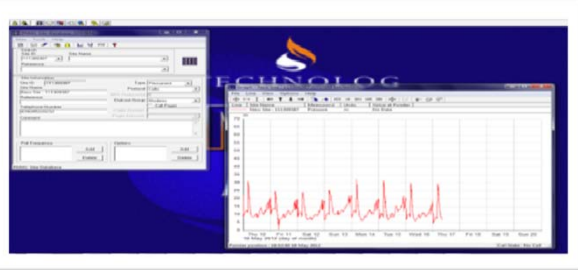




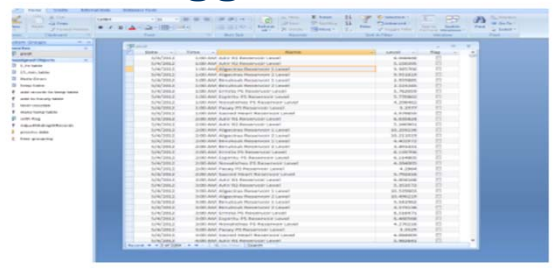
# Telemetry Background

- Established in 1997 using Remote Terminal Unit base with radio communication
- Started upgrading in 2004 using data logger with separate flow and pressure sensing instrument
- Started upgrading from radio base to cellular base communication in 2005
- Began its research and development in 2010:
  - Distribution line metering and instrumentation
  - Communication & Data Acquisition

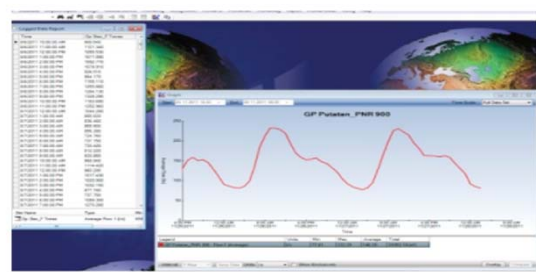
# Telemetry Background



**Datalogger Software**



**Communication Software**



**Instrumentation Software**



**Data Export Software**

Data Management

- Different types of data acquisition software
- Different data formats
- One brand = one configuration software
- Processed manually





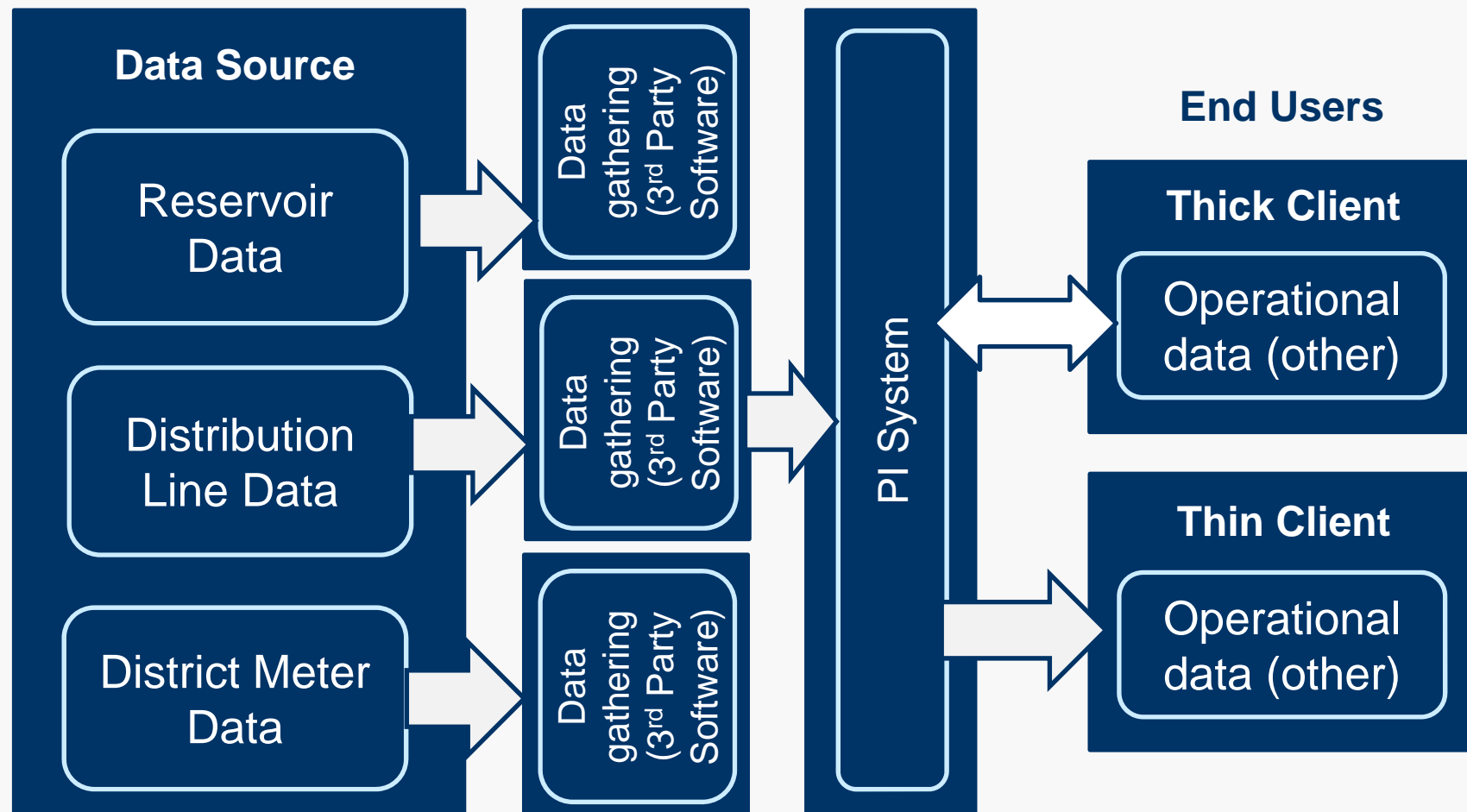
# PI System for Maynilad



# Maynilad with PI System

Challenges		Addressing Challenges with PI
Non-real time data sharing	Data sent through e-mail and/or FTP	Users and view data remotely over the internet
	Large file format	Easy data retrieval through MS Excel Data is compressed to smaller file format which allows faster transmission and allows more files to be hosted in the server for a long time period
Changes in monitoring schemes	Historical data retrieval	Database redundancy to back-up data Treatment Plants, Sewerage Treatment Plants (STPs) and Pumping Stations SCADA automation
Manual Process	Retrieve and sharing are done manually	Automated data processing is done through integration to the third party
Fragmented data management	Fragmented data management	Can be integrated with other third party data management software
Fast-paced technology	Integration with new data format	Can be assimilated with the recent software technology and new file formats.

# Software Enhancement



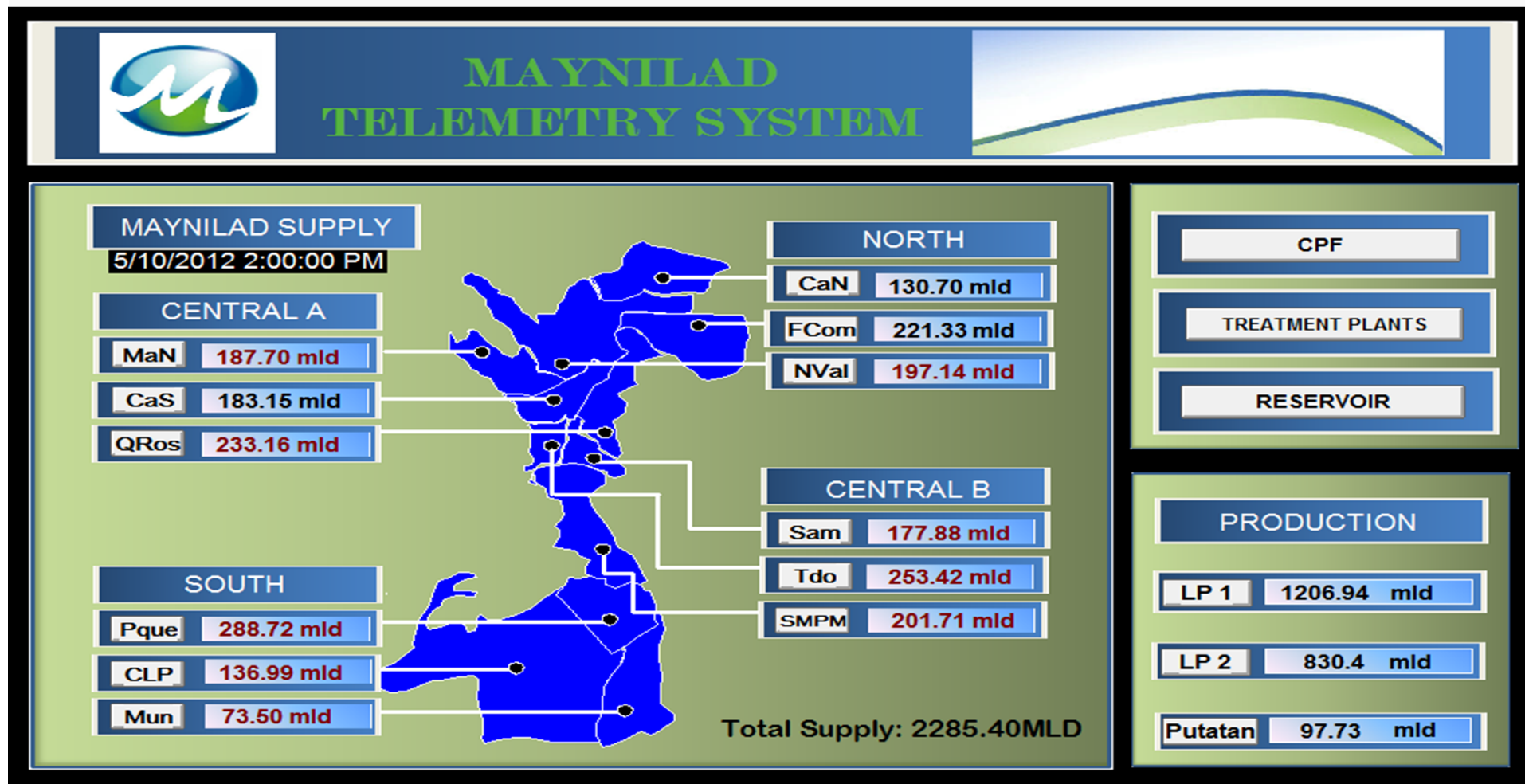
- PI System collects all types of data format
- Stores and manage all data
- Shares info thru network



# Telemetry-PI System (Snapshots)

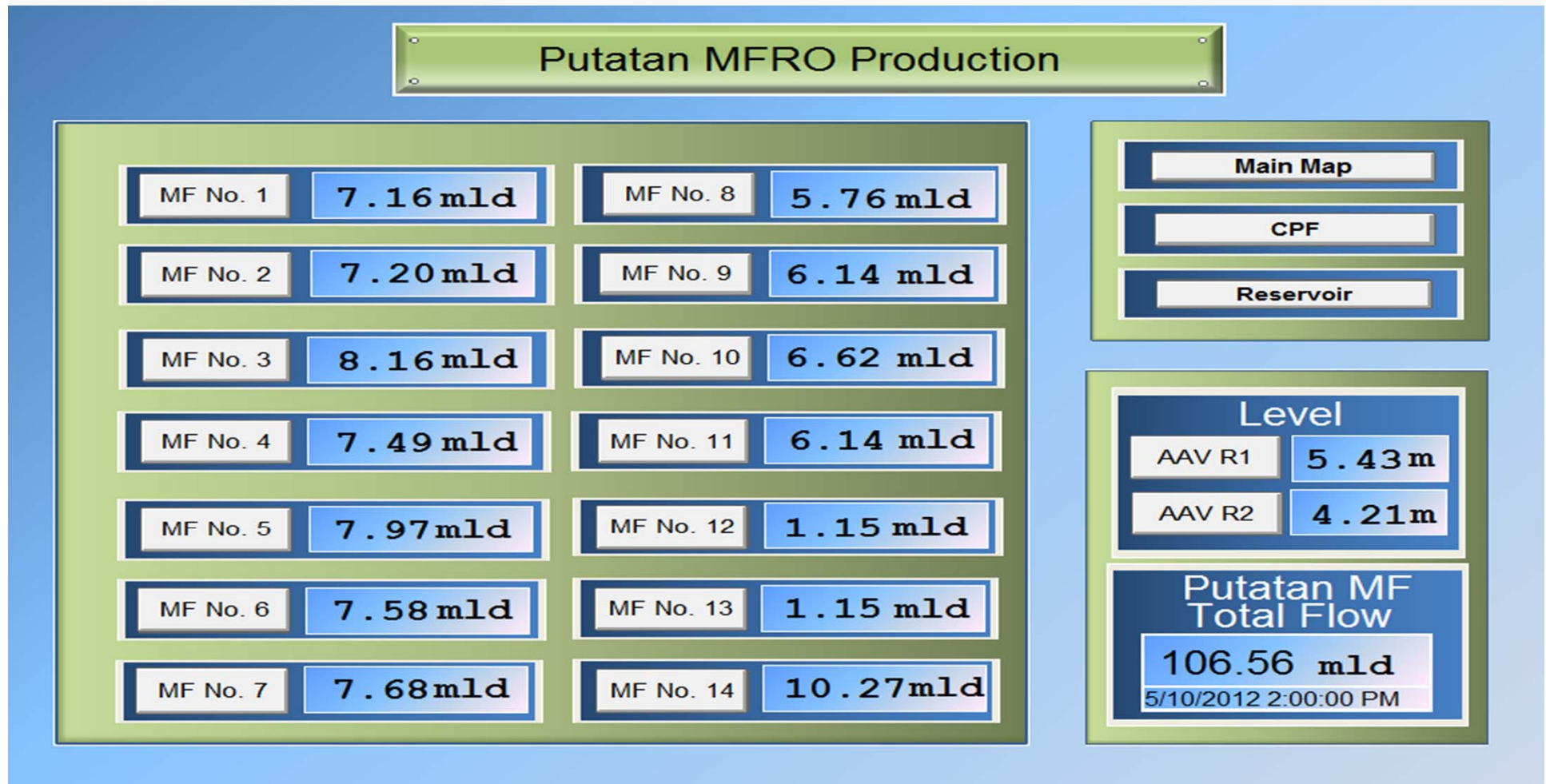


# PI – Supply/Production Monitoring



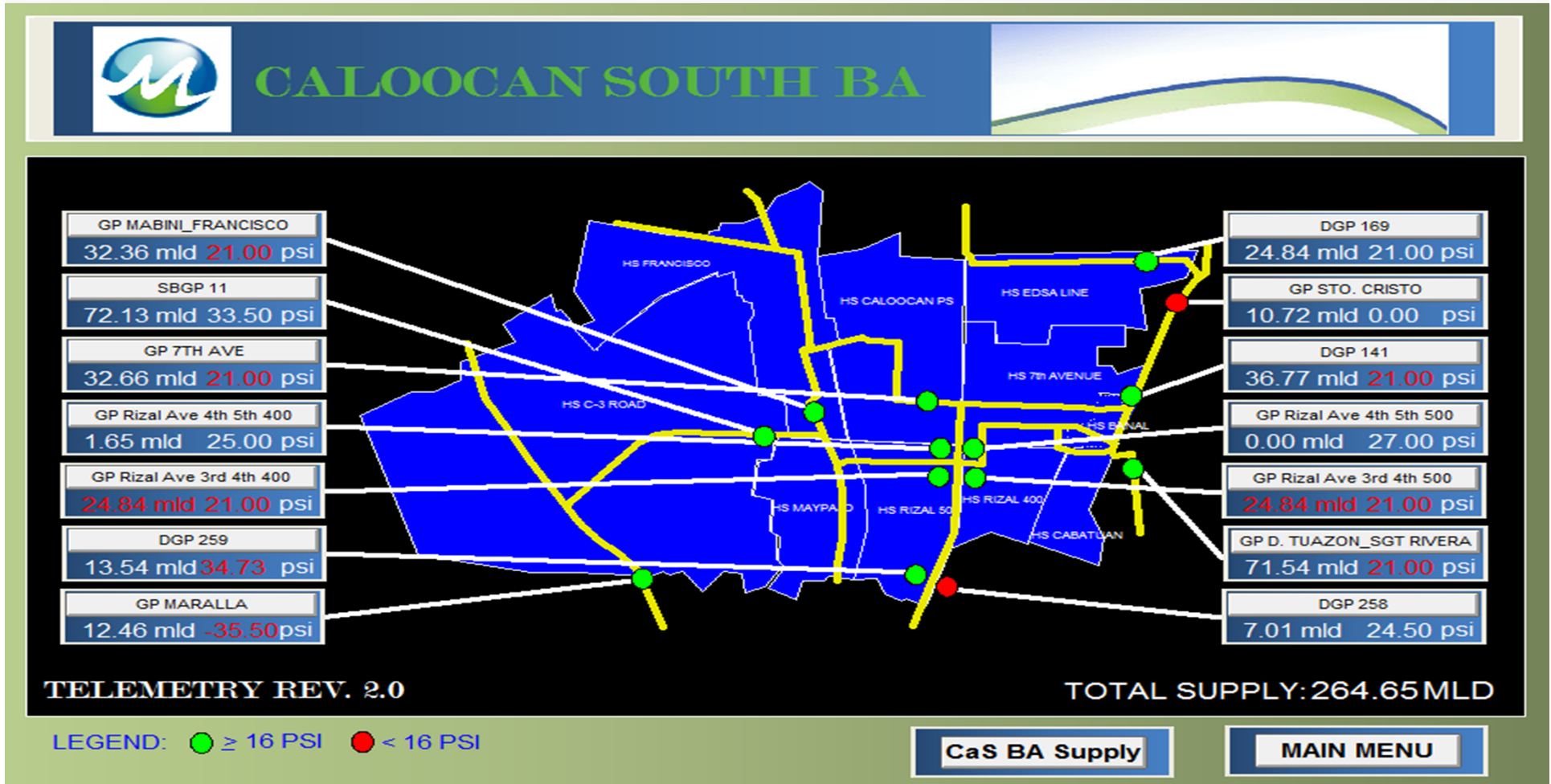


# PI – Production Monitoring





# PI – By Area Monitoring



# PI – Dam Elevation Monitoring

WATER SOURCES DAM ELEVATION



ANGAT DAM LEVEL 213.24 m

IPO DAM LEVEL 100.33 m

LAMESA DAM LEVEL 79.03 m



Main Map

Reservoir

Treatment Plants

# PI – Plant Monitoring



# Benefits

- PI populates reports automatically – no need for manual intervention
- No need for programmers or IT to intervene
- Source of verified data from field which can be published to different users
- Can hook-up with many different vendors' PLCs
- Simple to use
- User-friendly

# Future plans

- Make PI the single source of truth and data for all field data
- Link-up automated plants into the PI infrastructure
- Make information pervasive, allow different departments to get the data they need without IT's intervention
- Let people use and analyze the data, come up with their own schemes of how operations can be improved

**For more information about our company,  
visit [www.mayniladwater.com.ph](http://www.mayniladwater.com.ph)**