REHABILITATION/ UPGRADING OF TWELVE (12) PUMPING STATIONS IN METRO MANILA
REHABILITATION/ UPGRAADING OF TWELVE (12) PUMPING STATIONS IN METRO MANILA

SCOPE OF WORKS

✓ INCREASE IN PUMP CAPACITY
✓ REMOVAL AND REPLACEMENT OF OLD / EXISTING PUMPS
✓ CONCRETE WORKS FOR PUMP STATION MODIFICATION
✓ ELECTRICAL AND MECHANICAL WORKS
✓ PROVISION OF PUMPING STATION ACCESSORIES
  (TRASH SCREEN, HORIZONTAL /INCLINED BELT CONVEYOR, HOPPER, FLAP VALVE, AND BUTTERFLY VALVE ACTUATOR)
✓ SUPPLY OF GENERATOR SETS
✓ COMPUTERIZATION AND NETWORKING SOFTWARE FOR MONITORING AND ALARM SYSTEM AND FLOOD SIMULATION SYSTEM
REHABILITATION/UPGRADING OF TWELVE (12) PUMPING STATIONS IN METRO MANILA

- NORTH CLUSTER
  - VALENCIA PUMPING STATION
    - CATCHMENT AREA = 246.0 Hectares
  - AVILES PUMPING STATION
    - CATCHMENT AREA = 355.0 Hectares

- WEST CLUSTER
  - BINONDO PUMPING STATION
    - CATCHMENT AREA = 276.0 Hectares
  - QUIAPO PUMPING STATION
    - CATCHMENT AREA = 295.0 Hectares
  - ARROCEROS PUMPING STATION
    - SMALL PUMPING STATION

- EAST CLUSTER
  - BALETE PUMPING STATION
    - CATCHMENT AREA = 133.30 Hectares
  - PACO PUMPING STATION
    - CATCHMENT AREA = 214.10 Hectares
  - PANDACAN PUMPING STATION
    - CATCHMENT AREA = 126.16 Hectares
  - STA. CLARA PUMPING STATION
    - CATCHMENT AREA = 126.25 Hectares
  - MAKATI PUMPING STATION
    - CATCHMENT AREA = 151.0 Hectares
  - LIBERTAD PUMPING STATION
    - CATCHMENT AREA = 779.0 Hectares
  - TRIPA DE GALLINA PUMPING STATION
    - CATCHMENT AREA = 1,709.0 Hectares

- SOUTH CLUSTER

LEGEND:
- CATCHMENT AREA OF PUMPING STATION
- PUMPING STATION
REHABILITATION OF PUMPING STATIONS

PANDACAN PUMPING STATION

BEFORE REHABILITATION

Old Vertical Axial Flow Pump (2.20 cu.m./s each two (2) units)

DURING REHABILITATION

New Vertical Axial Flow Pump (2.75 cu.m./s each two (2) units)

AFTER REHABILITATION

Old Generator Engine (55KVA, 70hp)

New Generator Engine (750KVA, 460V, 3ph, 60Hz)
REHABILITATION OF PUMPING STATIONS

PACO PUMPING STATION

New Overhauled Vertical Axial Flow Pumps

Refurbished three (3) units automatic trash rakes
REHABILITATION OF PUMPING STATIONS

BALETE PUMPING STATION

- Installed three (3) new units 9.0KW, 1.0cm/s submersible pump
- Installed one (1) unit 450KVA, 460V generator set
- New Control Panel
REHABILITATION OF PUMPING STATIONS

ARROCEROS PUMPING STATION

- Installed one (1) new unit 250KVA, 460V generator set

- Installed one (1) new unit 1.0cm/s, 90Kw, 460V submersible pump, the other three (3) are old pumps

- Installed Supervisory Control and Data Acquisition System (SCADA) software for remote monitoring
REHABILITATION OF PUMPING STATIONS

VALENCIA PUMPING STATION

**BEFORE REHABILITATION**

Old Submersible Pump (2.625 cu.m./s each four (4) units)

**DURING REHABILITATION**

Replacement of Secondary Trash Screens

**AFTER REHABILITATION**

New Submersible Pump (3.50 cu.m./s each four (4) units)
REHABILITATION OF PUMPING STATIONS

AVILES PUMPING STATION

BEFORE REHABILITATION
Old Submersible Pump (3.625cu.m./s each four (4) units)

DURING REHABILITATION

AFTER REHABILITATION
New Submersible Pump (4.53cu.m./s each four (4) units)

PUMP FLOORS
QUIAPO PUMPING STATION

BEFORE REHABILITATION

DURING REHABILITATION

AFTER REHABILITATION

Old Vertical Axial Flow Pump (2.375 cu.m./s each four (4) units)

New Submersible Pump (3.625 cu.m./s each four (4) units)

Replacement of Trash rakes

METROPOLITAN MANILA DEVELOPMENT AUTHORITY / FLOOD CONTROL MANAGEMENT OFFICE
REHABILITATION OF PUMPING STATIONS

BINONDO PUMPING STATION

BEFORE REHABILITATION

Old Vertical Axial Flow Pump (2.90cu.m./s each four (4) units)

DURING REHABILITATION

New Submersible Pump (3.63cu.m./s each four (4) units)

AFTER REHABILITATION

Old Generator Sets 75KVA/ 95Hp two (2) units

New Generator Sets (500KVA each two (2) units)
REHABILITATION OF PUMPING STATIONS

TRIPA DE GALLINA PUMPING STATION

BEFORE REHABILITATION

DURING REHABILITATION

AFTER REHABILITATION

Replacement of Main Pumps and Main Engine

Replacement of Secondary Trashrakes
**REHABILITATION OF PUMPING STATIONS**

**LIBERTAD PUMPING STATION**

**BEFORE REHABILITATION**

**DURING REHABILITATION**

**AFTER REHABILITATION**

- Repaired and Overhauled main diesel engines
- Repaired Trash Rake Assembly

METROPOLITAN MANILA DEVELOPMENT AUTHORITY / FLOOD CONTROL MANAGEMENT OFFICE
REHABILITATION OF PUMPING STATIONS

STA. CLARA PUMPING STATION

BEFORE REHABILITATION

AFTER REHABILITATION

Refurbished structurally the Inclined Conveyors

Refurbished the Secondary Trash Screens
REHABILITATION OF PUMPING STATIONS

MAKATI PUMPING STATION

BEFORE REHABILITATION

AFTER REHABILITATION

Refurbished the Horizontal Conveyors

Repair and replaced the Trash Hopper