CALIBRATION OF WATER METERS

I. OBJECTIVE
   This procedure defines the accuracy and durability of water meters to be used.

II. SCOPE
   Covers all calibration of Maintenance Orders, Service Requests, New and for Old water meters.

III. RESPONSIBILITY AND RESOURCES
   Supervising Water Utilities Management Officer
   Water Meter Mechanic
   Water Meter Unit Field Personnel
   Requester

IV. DEFINITION OF TERMS
   Water Meter – a device use to measure the volume of water being used by the concessionaires
   Water Meter Mechanic – a person having knowledge in repairing and checking Water Meter
   SWUMO– Supervising Water Utilities Management Officer
   Test Bench – a device where water meter is installed for testing
   MO – Maintenance Order
   SR- Service request

V. REFERENCE DOCUMENTS

VI. RECORDS GENERATED
   Water Meter Inventory, Daily Summary Report

Prepared by: WATER RESOURCES DIVISION
Process Owner

Approved by: STELLA M. GONZALES, MPS
General Manager
### VII. PROCEDURE DETAILS AND FLOW

<table>
<thead>
<tr>
<th>No.</th>
<th>Process Flow</th>
<th>Description of Activity</th>
<th>Guidelines/Criteria/Policy</th>
<th>Responsible Person</th>
<th>Retained Information</th>
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</thead>
</table>
| 1   | Start        | 1.1 Receive Water Meters based on the following classifications:  
  1.1.1 New water meters  
  1.1.2 Over six months  
  1.1.3 Maintenance Orders (MO) subject for Test/Calibration  
  1.1.4 Service Requests (SR) from concessionaires request  
  1.1.5 Above 5 years water meters | SWUMO | Water meter laboratory logbook Maintenance Orders Service Request |
|     | Receive Water Meters, Maintenance Orders and Service Requests |                     |                             |                    |                      |
| 2   | Calibrate/Test Water meters | 2.1.1 For new water meter, install at test bench for calibration.  
  2.1.2 For over six months, inspect, repair and install at test bench for calibration.  
  2.1.3 For Maintenance Orders; check water meter on site and calibrate using Calibrating Bucket.  
  2.1.4 For Service Requests: Test Water Meter on site by using Calibrating Bucket. For Pull-out Water Meter Testing, pull-out water meter on site for laboratory testing and calibration.  
  2.1.5 For above 5 years, conduct cleaning, repair and install in the test bench for calibration. | A minimum pressure of 120 psi applied for all Water Meters for 24 hours duration of testing/calibrating by the ff:  
  1. 100 Liters Capacity Calibrating Bucket Flow Testing  
  2. Electronic Calibrating Gadget  
  3. Flow Testing with a Mother Meter. | SWUMO | Water Meter Laboratory Logbook |
# PROCEDURES MANUAL

## CALIBRATION OF WATER METERS

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<td></td>
<td>A</td>
<td>Does Water Meter conform to MKWD standards?</td>
<td>If No, 3.1 Check Water Meter and conduct another repair and calibration 3.2 For Service Request (SR) and Maintenance Order (MO), do another round of repair for testing and calibration. If Yes, 3.3 Remove Water Meter at Test Bench and ready for its release/utilization. 3.4 For Service Request (SR) and Maintenance Order (MO), remark the form as “Functioning” and submit the form to SWUMO for posting of accomplishment.</td>
<td>A variance of ±2% reading of all water meters installed versus the calibrating equipments as compliance to MKWD Standards. A minimum pressure of 120 psi applied for all Water Meters for 24hours duration of testing/calibrating.</td>
<td>SWUMO</td>
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<td>4</td>
<td>C</td>
<td>Remove inserts and endorse WM to supply office for disposal.</td>
<td>4.1 If Water Meter is still not functioning; 4.1.1 For New Water Meters, Over Six (6) months and above five (5) years, remove all inserts and endorse Water Meter Body to Supply Office for proper disposal. 4.1.2 For Service Request (SR) and Maintenance Order (MO), remark the form as “Defective” and submit the form to SWUMO for posting of accomplishment.</td>
<td>Not conforming to MKWD set standards.</td>
<td>SWUMO</td>
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**Doc No.**: PM-WRD-01  
**Rev. No.**: 00  
**Eff. Date**: 12-08-16  
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