Section VIII: Supporting Documentation

A. Agricultural Water Measurement Regulation Documentation (as applicable)

The District receives its water deliveries through eight DWR turnouts off of the California Aqueduct. These turnouts have meters which record instantaneous flow rates as well as total quantities delivered. The duration and flow rates for all deliveries are scheduled in advance so that DWR can coordinate water flows to the District.

In addition to the DWR metered turnouts, all in-District deliveries are metered daily during use at individual Water User turnouts. These Water User meters are located at turnouts throughout the District. These turnouts include meter facilities that were originally designed by District consulting engineers who also oversaw construction of the facilities. District Water Users also schedule their deliveries (duration and flow rates) in advance so the District can accurately schedule deliveries from DWR.

District System Operators measure deliveries to individual turnouts daily when they are operating. The System Operators know the requested flow rate at various turnouts as well as the normal flow rate. If there is any variance in these rates or if there is any problem with the meter the O&M Superintendent is immediately notified and repair work is scheduled. The District primarily uses McCrometer flow meters and District maintenance staff have received training at McCrometer's facility. Replacement meters are purchased from McCrometer and include a Certified Test Report (Appendix 11).

District staff compares DWR daily flow rates and deliveries with the sum of individual in-District flow rates and deliveries as another check of meter accuracy. This process enables District staff to document meter accuracy daily and to quickly identify variances and schedule repairs. In addition DWR total monthly deliveries are compared to the sum of individual in-District deliveries as another check of meter accuracy. During 2012 the sum of individual in-District meters was within about 1% of DWR meter readings.

1. Legal Certification and Apportionment Required for Water Measurement

Legal certification is not applicable.

2. Engineer Certification and Apportionment Required for Water Measurement

An engineer's certification is not provided because BMWD's water measurement practices as described above, demonstrate compliance with accuracy standards.

3. Description of Water Measurement Best Professional Practices

Best Professional Practices refer to:

- Collection of water measurement data: By staff members trained and supervised by the superintendent.
- Frequency of measurements: Daily while in use. All meters read monthly at a minimum.
- Method for determining irrigated acres: Provided by customers, checked by aerial photographs.
- Quality control and quality assurance procedures:
  - Cross check daily flowrate versus customer order. Sum all turnout reading monthly. Investigate and attempt to correct identified differences.
  - Sum all running meters daily and compare versus DWR meters by Service Area. Investigate and attempt to correct identified differences. Repair all meters found not functioning properly per manufacturer's recommendations.

All of the turnout deliveries within the District are fully metered with propeller flowmeters which register both instantaneous and totalized flows.

The District maintains daily delivery records for each turnout being used and maintains records of daily water orders from the SWP. A grower's water use to date and remaining allocation is maintained by the District's comprehensive database system (Latis). The system helps manage water orders, water use, water supply, water contract information, and water delivery system information.

4. Documentation of Water Measurement Conversion to Volume

All flowmeters used by BMWD register both instantaneous and totalized flows (volume accrued during a period of time).

5. Device Corrective Action Plan Required for Water Measurement

BMWD is confident its existing water measurement devices meet the ±12% accuracy standard, and replacement meters meet the ±6% accuracy standard. No corrective actions are planned.

B. Other Documents (as applicable)

Tables and appendices have been included as needed to support this AWMP document. Most of the tables follow the format suggested in the template given in the "A Guidebook to Assist Agricultural Water Suppliers to Prepare a 2012 Agricultural Water Management Plan". Additional tables and appendices provide complementary information where needed.