

Attachment S- SWFWMD Metering Instructions

The Permittee shall meter withdrawals from surface waters and/or the ground water resources, and meter readings from each withdrawal facility shall be recorded on a monthly basis within the last week of the month. The meter reading(s) shall be reported to the Water Use Permitting Bureau on or before the tenth day of the following month. The Permittee shall submit meter readings online using the Permit Information Center at www.swfwmd.state.fl.us/permits/epermitting/ or on District supplied scanning forms unless another arrangement for submission of this data has been approved by the District. Submission of such data by any other unauthorized form or mechanism may result in loss of data and subsequent delinquency notifications. Call the Water Use Permitting Bureau in Tampa (813) 985-7481 if difficulty is encountered.

I. All meters shall adhere to the following descriptions and shall be installed and maintained as follows:

A. All meters shall be non-resettable, totalizing flow meters that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring devices or alternative accounting or reporting methods are proposed, prior to installation, the Licensee shall submit documentation that the other measuring devices or accounting methods meet the accuracy requirement provided below. If the alternative accounting method involves a meter belonging to another entity or to an alternative water supply provider, the Licensee shall submit documentation from the owner/supplier that the meter readings conform to these meter requirements. Such documentation is subject to approval by the SWFWMD. Approval for other measuring devices, accounting methods, or reporting methods must be obtained in writing from the SWFWMD.

1. The flow meter(s) or other approved flow-measuring device(s) shall have and maintain accuracy within five percent of the actual flow as installed.

2. Accuracy testing requirements:

i. For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.

ii. The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of the Site Certification.

iii. The testing frequency will be decreased if the Licensee demonstrates to the satisfaction of the SWFWMD that a longer period of time for testing is warranted.

iv. The test will be accepted by the SWFWMD only if performed by a person certified on the test equipment used as described in the section entitled Flow Meter Verification, below.

v. If the actual flow is found to be greater than 5% different from the measured flow, within 30 days the Licensee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.

B. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line. Existing systems that would require retrofitting to achieve the above standards will not be required to retrofit provided it is documented on the Meter Accuracy Verification Form, Form No. LEG-R.014.00 (07/08) that the flow meter is accurately and reliably measuring flow over different flow ranges or for the permanent operating flow.

C. If a metered withdrawal point, AWS inflow line or re-pump withdrawal point is not utilized during a given month, the meter report shall be submitted to the SWFWMD showing the same meter reading that was submitted the previous month.

D. Broken or malfunctioning meter:

If the meter or other flow-measuring device malfunctions or breaks, the Licensee shall:

1. Notify the SWFWMD within 15 days of discovering the malfunction or breakage;
2. Replace the broken or malfunctioning meter with a repaired or new meter, subject to the specifications given above, within 30 days of the discovery; and
3. Submit estimates of their pumpage as described below.

If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, the withdrawal point shall not lack a fully functioning meter for more than 60 consecutive days.

E. While the meter is not functioning correctly, the Licensee shall document the total amount of time in minutes that the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on SWFWMD scanning forms and noted as estimated per instructions on the form. If the data are submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.

F. In the event a new meter is installed to replace a broken meter, the meter and its installation shall meet the specifications of the SWFWMD. The Licensee shall notify the SWFWMD of the replacement with the first submittal of meter readings from the new meter.

[Sections 373.016, 373.219, 373.223(1), 373.236, F.A.C.; Rules 40D-2.301(1), (3), 40D-2.381(1), (4); F.A.C.; B.O.R., Sections 5.1, 6.2]

II. FLOW METER ACCURACY TEST INSTRUCTIONS

A. Accuracy Test Due Date - The Permittee is to schedule their accuracy test according to the following schedule:

1. For existing metered withdrawal points, add five years to the previous test year, and make the test in the month assigned to your county.

2. For withdrawal points for which metering is added for the first time, the test is to be scheduled five years from the issue year in the month assigned to your county.

3. For proposed withdrawal points, the test date is five years from the completion date of the withdrawal point in the month assigned to your county.

4. For the Permittee's convenience, if there are multiple due-years for meter accuracy testing because of the timing of the installation and/or previous accuracy tests of meters, the Permittee can submit a request in writing to the Permitting Department Director for one specific year to be assigned as the due date year for meter testing. Permittees with many meters to test may also request the tests to be grouped into one year or spread out evenly over two to three years.

The months for accuracy testing of meters are assigned by county. The Permittee is requested but not required to have their testing done in the month assigned to their county. This is to have sufficient District staff available for assistance.

January	Hillsborough
February	Manatee, Pasco
March	Polk (for odd numbered permits)*
April	Polk (for even numbered permits)*
May	Highlands
June	Hardee, Charlotte
July	None or Special Request
August	None or Special Request
September	Desoto, Sarasota
October	Citrus, Levy, Lake
November	Hernando, Sumter, Marion
December	Pinellas

* The permittee may request their multiple permits be tested in the same month.

III. Accuracy Test Requirements: The Permittee shall test the accuracy of flow meters on permitted withdrawal points as follows:

A. The equipment water temperature shall be set to 72 degrees Fahrenheit for ground water, and to the measured water temperature for other water sources.

B. A minimum of two separate timed tests shall be performed for each meter . Each timed test shall consist of measuring flow using the test meter and the installed meter for a minimum of four minutes duration. If the two tests do not yield consistent results, additional tests shall be performed for a minimum of eight minutes or longer per test until consistent results are obtained.

C. If the installed meter has a rate of flow, or large multiplier that does not allow for consistent results to be obtained with four- or eight-minute tests, the duration of the test shall be increased as necessary to obtain accurate and consistent results with respect to the type of flow meter installed.

D. The results of two consistent tests shall be averaged, and the result will be considered the test result for the meter being tested. This result shall be expressed as a plus or minus percent (rounded to the nearest one-tenth percent) accuracy of the installed meter relative to the test meter. The percent accuracy indicates the deviation (if any), of the meter being tested from the test meter.

IV. Accuracy Test Report: The Permittees shall demonstrate that the results of the meter test(s) are accurate by submitting the following information within 30 days of the test:

A. A completed Flow Meter Accuracy Verification Form, Form LEG-R.014.00 (07/08) for each flow meter tested. This form can be obtained from the District's website (www.watmatters.org) under "ePermitting and Rules" for Water Use Permits.

B. A printout of data that was input into the test equipment, if the test equipment is capable of creating such a printout;

C. A statement attesting that the manufacturer of the test equipment, or an entity approved or authorized by the manufacturer, has trained the operator to use the specific model test equipment used for testing;

D. The date of the test equipment's most recent calibration that demonstrates that it was calibrated within the previous twelve months, and the test lab's National Institute of Standards and Testing (N.I.S.T.) traceability reference number.

E. A diagram showing the precise location on the pipe where the testing equipment was mounted shall be supplied with the form. This diagram shall also show the pump, installed meter, the configuration (with all valves, tees, elbows, and any other possible flow disturbing devices) that exists between the pump and the test location clearly noted with measurements. If flow straightening vanes are utilized, their location(s) shall also be included in the diagram.

F. A picture of the test location, including the pump, installed flow meter, and the measuring device, or for sites where the picture does not include all of the items listed above, a picture of the test site with a notation of distances to these items. with a notation of distances to these items.

V. WATER LEVEL INSTRUCTIONS

The staff gauge(s) shall be surveyed according to instructions given on the District website and referenced to the North American Vertical Datum 1988, and a copy of the survey indicating the datum reference shall be submitted with the first water level data report. The staff gauge(s) shall be scaled in one-tenth foot increments and shall be sized and placed so as to be clearly visible from an easily accessible point of land. Water levels shall be recorded on a frequency as indicated in the table provided in the special condition and reported to the Permit Data Section, Performance Management Office, online via the WUP Portal at the District website or in hardcopy on District -provided forms on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded on a regular schedule as indicated in the recording timetable below. The frequency of recording may be modified by the Regulation Department Director, Resource Regulation, as necessary to ensure the protection of the resource.

Water Level Recording Timetable

Frequency	Recording Schedule
Daily	Same time of each day
Weekly	Same day of each week
Monthly	Same week of each month
Quarterly	Same week of months specified