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NEW MEXICO BULLETIN NO. 210-13-05

SUBJECT: ENG – MEASURING TOOLS

TO: All Employees

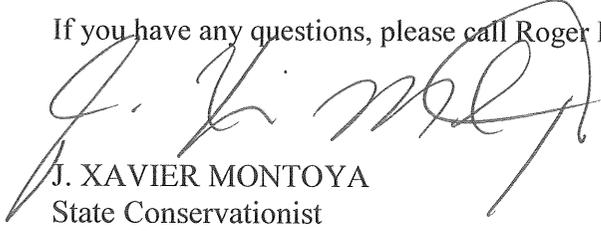
Purpose: To provide allowable measurement methods for practice certification and Quality Assurance.

Expiration Date: September 30, 2013.

The following six measurement methods have been evaluated: Total Station, Garmin 76 GPS, Trimble GPS (sub-meter), Tape or Chain, Laser Range Finders, and the Wheel. Trimble GPS-RTK units were not evaluated since they have centimeter accuracy. The wheel was the least accurate, but all six methods provided measurements within 1% of each other. Therefore, all methods are accurate when used properly.

For large diameter ($\geq 10''$) irrigation pipeline, ditch lining, and micro-irrigation systems, required methods of measurement are Tape or Chain, Total Station, or Trimble RTK-GPS. For all other engineering practices, the choice of these seven (7) measuring methods will be left to the individual with job approval authority. This individual is responsible for correctly using the equipment. The proper use of the measurement equipment is provided in the user manual that came with the equipment. When using the Garmin GPS 76, the waypoint averaging procedure must be used with at least 100 readings averaged.

If you have any questions, please call Roger Ford at 505-761-4430.



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State Conservationist