Lateral irrigation diversion monitoring

Lateral diversions are generally deep underground with limited access and even more limited metering options. Combined with silt and trash-laden stream flows, the large pipes often associated with lateral diversions used by irrigation water-supply companies to distribute water usually mean either expensive meters or no meter at all.

The MACE AgriFlo XCi provides a simple and cost-effective solution to the measurement of these flows. Firstly, a choice of MACE sensors can be installed inside pipes from 100 mm to 2.5 m (4 in. to 100 in.) in diameter with or without underground access. Secondly, cables are routed either underground and/or through the mounting pole to the AgriFlo XCi device, providing an extremely tamper and vermin resistant design.

Many large lateral diversions monitored by irrigation districts have multiple pipes that need to be monitored. With the AgriFlo XCi, up to five pipes can be measured with the same unit, providing even greater overall water management at an extremely affordable price. Because MACE velocity sensors provide very little obstruction to the flow and have no moving parts, the whole system is virtually maintenance free.

In the example shown, the AgriFlo XCi is monitoring a typical lateral diversion with twin pipes. The flow in each pipe is measured with a MACE insertion velocity sensor. With a MACE WebComm card installed, these readings are available 24/7 on the MACE website, as well as having the ability to be alarmed via SMS/email to any mobile phone.