



Irrigation water flow measurement with Greyline AVFM area-velocity flow meter.

The United Irrigation District (UID) in Southern Alberta, Canada serves 34,400 acres of rural land through a series of canals, channels, and pipelines running 236 km throughout the region. Water is a valuable resource in the warm, arid regions of the province and agriculture uses 60-65% of the freshwater consumed. So water use is closely regulated and monitored.

Fred Rice, Manager of the United Irrigation District was looking for a flowmeter that did not obstruct

flow in the irrigation canals. He used many different meters in the past but "other methods required a structure or weir in the channel that raised the water level and required a holding pond." So the UID began installing AVFM Area-Velocity Flow Meters in 2008. The Greyline flowmeters work with a small, sealed ultrasonic sensor mounted at the bottom of a pipe or channel. The submerged sensor measures water level plus velocity and the flowmeter is calibrated according to the size of the pipe or channel.

The UID use the Area-Velocity meter's flow rate display to regulate daily total flow delivered to their customers. Water users notify the UID prior to operation. The District knows the typical water consumption of each pivot so Ditch Riders adjust channel gates to regulate the flow rate and provide



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Fred Rice, Manager, United Irrigation District

sufficient water for the number of pivots scheduled to be in operation, and any unused water is returned to the river.

A program of Return Flow Credits is being considered in Alberta. If the province implements the program the UID plans to install additional AVFM Flow Meters to measure return flow of water to the river.

More Information

Alberta Irrigation Information Booklet: [Click here](#)

Agriculture & Irrigation in Alberta: [Click here](#)



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INFO@PULSARMEASUREMENT.COM

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Registered No.: 3345604 England & Wales

Delivering the Measure of Possibility

United States
11451 Belcher Road South
Largo, FL 33773
888-473-9546

Canada
16456 Sixsmith Drive
Long Sault, Ont. K0C 1P0
855-300-9151

United Kingdom
Cardinal Building, Enigma
Commercial Centre
Sandy's Road, Malvern WR14 1JJ
+44 (0) 1684 891371