

Edl, Michele

From: Weaver, Mathew
Sent: Friday, November 04, 2011 8:37 AM
To: Rex Barrie
Cc: Edl, Michele; Miller, Nick; Don Anton
Subject: Riverside Village Water Measurement Device

Rex,

I met with Don Anton (president of the HOA) and the Engineer (Steve) to inspect the installed Doppler flow meter at the Riverside Village Subdivision (RVS). Refer to the attached pictures below. The insert-type Doppler flow meter (DFM) has been installed in a vault (36" diam. PVC pipe mounted vertically) with an insulated manhole type lid. The vault is located approximately 20 feet upstream of the outlet into the first RVS pond. The DFM was in good working order at the time of my site visit. I observed a flow rate of 2.18 cfs, velocity of 0.95 fps, system voltage of 12.6 volts, and a voltage output from the solar panel of 14.57 volts. The solar panel was located discreetly in a pine trip near the DFM.

The DFM has not been corroborated with a separate measurement yet. The engineer plans to provide a corroborating measurement at the start of irrigation diversions next year. The engineer indicated that he has already observed the pipe not flowing full (Saturday 10/29/2011). This is worth noting because insert-type DFM can only measure flow rate in a pipe full scenario. The flow rate in the Boise River at the Glenwood Gage (USGS 13206000) ranged from 240-320 cfs on Saturday. During my site visit, when the DFM was working and presumably the pipe was flowing full, the flow rate in the river was 295 cfs. Therefore, somewhere between 240-295 cfs, the pipe transitions into a non-full flow condition. This likely will not be a problem as we are concerned with flow rates during the irrigation season and one would expect that those would always be high enough to keep the diversion pipe full.

I was also informed by Don Anton that flow meters were purchased for the pond irrigation diversion pump stations and they were used during the irrigation season to measure flow rates. However, during my site visit the flow meters were not in evidence. Don suspects the flow meters were removed for the winter and will get me evidence of their use.

If anyone has any questions please let me know.

Cheers,

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