



GARY R. HERBERT  
Governor

GREG BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Water Rights

KENT L. JONES  
State Engineer/Division Director

October 13, 2009

Wellsville New East Field Irr. Co.  
Attn: Duane Hall  
3100 West 3500 South  
Wellsville, UT 84339

RE: **Little Bear River Distribution System**, East Field Canal Flume Improvements, SEAA 1317, Account 100789, WR No. 25-1537 et al.

Dear Mr. Hall:

This letter is to request a status report of the progress and work accomplished in meeting the requirements of the Measuring Device Notice (SEAA 1317) we issued on July 1, 2009.

Our recommended solution for accomplishing the necessary work is to have the irrigation company make the needed repairs by constructing a new stilling well at the measuring flume and also pay the equipment costs associated with the new electronic equipment. Our personnel will install the equipment after (1) the new stilling well is constructed and (2) we are reimbursed for the costs of purchasing your electronic equipment.

Due to the nature of the work involved and the time required to get the telemetry system up and running, we recommend the gauging station be installed as soon as possible to make the needed progress to finish this work before the April deadline. Your new gauging station should be installed properly prior to any other related work or expenses. We recommend the following as minimum criteria for the new gauging station:

- Install a vertical steel pipe or culvert no less than 18 inches diameter at the proper stilling well location position on the outside edge of the Parshall Flume.
- The stilling well pipe should also have a half circle shelf installed about 10 inches below the top of the stilling well to support the electronic equipment.
- The stilling well should have a hinged weatherproof locking cover to protect the electronic equipment and extend 2-3 feet above ground to keep the equipment dry.
- The culvert or pipe stilling well should be secure and not leak. This can be accomplished with a concrete footing in which the culvert is embedded.
- The stilling well must be connected to the flume with pipeline ports that enable the water surface in the stilling well to reflect the same gage reading within the flume. This is best achieved with two or more connecting pipes between the flume and the stilling well at the proper staff gage location. One of

these ports is to be at the bottom of the flume and stilling well to flush sediments from the stilling well to the flume and another should be at a somewhat higher elevation to enable the flume to function properly at higher water levels. The connecting pipes should not leak and be of sufficient size to not restrict the required water flow.

- Sediment should be periodically (once per year during the non-irrigation season) flushed from the stilling well to ensure the ports remain clear of sediment with a good hydraulic connection between the flume and the stilling well.

It is important that the stilling well be constructed in a timely manner to enable the installation of electronic equipment before the April deadline. After the stilling well is constructed and the irrigation company reimburses us for the cost of the electronics equipment, our personnel will then be able to install the power supply and electronic equipment. The cost of the equipment purchase is estimated at approximately \$1800 for planning purposes. This new equipment is necessary to improve the water measurements within the distribution system and to satisfy state law and requirements. The goal is to enable the water commissioner to properly monitor and report water deliveries as required by state law and rules. The telemetry will enable automated reporting and remote access to flow data.

Please contact me at (801) 538-7469 to report the progress of this project and if you have questions concerning this letter and the work to be accomplished. You may also contact Will Atkin, Regional Engineer in our Logan Office at (435) 752-8755 if you have questions.

Sincerely,



Ben L. Anderson, P.E.  
Water Rights Distribution Engineer

cc: Will Atkin, Regional Engineer  
Greg Hansen, Commissioner