

Hydro Logic, Inc.

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Department of Water Resources
Eastern Region

1002 W. Franklin Street, Boise, ID 83702 (208) 342-8369. Fax (208) 342-3100, hli@hydrologicinc.net

March 6, 2015

Mr. Ed Smith
P.O. Box 6015
Twin Falls, ID 83303

Re: Thomas Leno and Four Sisters Dairies Proposed Water Right Transfers and Rebuttal
to Expert Reports by Brockway Engineering

Dear Mr. Smith:

I have reviewed the compact disc you sent me containing the expert reports of the Applicant's consultants and additional related documents with an eye toward any necessary rebuttal to those reports in the matter referenced above.

I find the reports are of similar content and quality as I have already addressed in my own expert report in this case dated February 13, 2015 and I request that report be included as part of the rebuttal you must submit today to the Hearing Officer.

In other words, I find there is little for me to rebut as the Applicant relies mostly on measurements and documents produced by others. However, because the Applicants deserve the right to discover what I may testify to at the hearing in this matter, I also include the following opinions and observations for the record:

- 1) The applications are supported by almost no hydraulic test data and even the pumping test presented at the pre-hearing conference was not included in any of the expert reports.
- 2) I find that the Applicant's consultant's assumptions and conclusions are often in conflict. Examples include:
 - a. Ground water/surface water hydraulic interconnections to the Low Line and High Line irrigation canals are assumed but the presented ground water contour maps do not appear to reflect this.
 - b. The hydraulic test included in the Applicant's Power Point Presentation shows approximately 200 feet of drawdown in the "test well" but their predictions of only inches of drawdown in the nearby protestants wells (<

¼ mile) would suggest a very low aquifer storativity while the modeling relied upon has a relatively high value. This is especially true when there is very little well loss with no apparent well screens or sand filter installed in the well.

- c. There is no test data reported on any of the Dairy #3 Well Driller's Reports.
 - d. The injury analyses presented are incorrect, misleading, and meaningless in that the well-to-well interference effects that concern the Protestants can (and routinely are) easily separated from an annual water level fluctuation in any quality hydrogeologic evaluation of pumping effects.
 - e. The Applicant relies upon the Theis Equation for its modeling when almost none of Theis' equation assumptions are met by the modeled conditions.
 - f. The Applicant's consultants apparently assume that the entire stack of stratified sub-aquifers (saturated individual geologic units) penetrated by the wells are under unconfined conditions which is not supported or expected.
- 3) While a flow-meter is proposed for the two new wells, there are no provisions for water level monitoring and/or reporting.
 - 4) The applicant relies upon methods that assume homogenous and isotropic conditions and a model with uniform thickness and storativity but it's narratives reflect the high variability in the subsurface.
 - 5) In general, I find the impact analyses to be completely unsupported and, because the needed studies and proofs are so easily obtained that I do not understand why such studies, standard in such evaluations, have not been conducted and presented.

Respectfully,

Ed Squires

