



BROCKWAY
ENGINEERING
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Hydraulics

Hydrology

Water Resources

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RECEIVED
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DEPARTMENT OF
WATER RESOURCES

July 5, 2012

Mr. Jeff Peppersack
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

Re: Permit 37-8205

Dear Mr. Peppersack:

Ed Lawson asked me to respond to the technical questions you asked in your letter to Mr. Lawson of June 20, 2012. You requested three (3) pieces of information to be submitted within 14 days of the date of your letter.

Item 1: Source of mitigation water

As you may recall, the Department has rejected all previous mitigation proposals in which the replacement source was clearly identified. The permit holder has been and is currently engaged in a major effort and is incurring considerable expense to evaluate every possible source of replacement water in the valley.

At present, a more detailed evaluation and quantification of the historical usage under decreed rights 37-22128 and 37-4368B is being performed. If these rights can offer some consumptive mitigation value, they will likely be part of the final mitigation plan. In addition, the owner is negotiating with other holders of consumptive rights in the Deer Creek valley. The potential for reconfiguration of reservoir areas in an effort to reduce consumptive use is also being explored. Potential sources external to the basin are being investigated; the fact that Deer Creek has been decreed as a dry stream makes this avenue problematic, but the every possible option is being pursued.

Item 2: Weather station

The station is a standard setup consisting of sensors to measure air temperature, water surface temperature, relative humidity, and wind speed. Sensors are located on a tripod, the wind speed is measured at the standard height, and the air temperature sensor is shielded from solar radiation. The hardware for the station was supplied by Onset Corporation. Data is logged at 15-minute intervals.

Item 3: Justification for data collection

Data collected to date indicates that climatological parameters – most notably the wind speed – differ considerably from those at the Hailey station. In fact, the average monthly wind velocity has been less than half the comparable value at the Hailey station. This finding has its physical basis in topographic differences since the project is located within a narrow valley where the bounding hills would be expected to shield the site. Wind speed is one of the most significant factors of those affecting evaporation estimates. For example, using the calculation methodology previously outlined to the Department, a doubling of the wind speed increases evaporation by about 57%. Because of the sensitivity to wind speed and other parameters, I believe that even one or two years of actual on-site data is of considerable value. I would encourage the Department to support the collection of the best possible scientific data in this and any other matter.

I hope that this information will be sufficient to justify additional time to prepare a mitigation plan as requested by Mr. Lawson.

Cordially,



Charles G. Brockway, P.E.

Cc: Donna Kelsey
Ed Lawson
Gary Spackman, IDWR Interim Director