

MEMORANDUM

Date: May 03, 2011
To: Water Right File 37-7891/01-7086
From: medl
Re: revised volume

On May 2, 2011, I received a phone call from Mitch Arkoosh, who was speaking on behalf of the Faulkner Brothers Hydroelectric facility. He was following up on my request of March 8, 2011, for generation or water data in support of the licensing of that hydro project. I understood that Mr. John Faulkner would be meeting with North Side Canal Co personnel that day and the meeting would be an opportunity to request or retrieve water data. I restated that I would prefer data from 1990, the year that proof was submitted. Mitch Arkoosh agreed to fax or mail copies of either generation or water records for that year as soon as he could.

During the phone conversation, I stated that I had been able to make calculations of the beneficial water use based on monthly average generation records provided by the PUC and that those calculations indicated the plant was using more water than the permit authorized. He was not familiar the permit limits so I quoted them. Apparently Mr. Faulkner was within earshot of the phone. Mr. Arkoosh asked him about the actual cfs needed to generate. They agreed that the plant was using water above both the summer and winter rates. I encouraged him to work with Faulkners, and the North Side Canal Co and begin the process for getting another permit to cover the additional use. We discussed some options which included a new permit and the possibility of taking over the permit for the abandoned Y8 hydroproject. The Faulkner Brothers Hydro took over the headworks of the Y8 project years ago in cooperation with owner-operators of that project, but did not take action to acquire the permit (1-7010C).

On May 3, 2011, I received emailed copies of operation logs for the Faulkner Brothers Hydro from Mitch Arkoosh. The logs were records of daily generation from 1990. Mitch Arkoosh also provided a spreadsheet titled Faulkner Brothers Hydro, 1990 Production Data, which he had created based on the operation logs. His spreadsheet shows the meter readings and calculations of kW and cfs based on the logged readings. As a verification check, I calculated monthly averages for his column Ave kW/hr. The resulting values were very close to the Average kW data that I had received from the PUC. However, the two data sets were not identical. I confirmed that I had received his emails in a follow-up phone call and briefly discussed reasons for the difference in the data with Mr. Arkoosh.

The daily average cfs calculations provided by Mr. Arkoosh in his spreadsheet are acceptable rough back-calculations of cfs from kW. I consider them superior to my calculations because they are based on data at a level of granularity finer than I had used. As a consequence, I used the daily cfs calculations provided by Mr. Arkoosh and adjusted the volumes for this license.

Those calculated daily values which were above the rates authorized by the permit were trimmed to the authorized rates: 10 cfs for summer; 54 cfs for winter.

My amended volume recommendation are outlined below

Winter season sum of calculated daily average cfs at or below 10 cfs = 1069.66 cfs

Winter season volume $1069.66 \times 1.9835 = 2121.67$ AF; rounded = 2120 AF

Summer season sum of calculated daily average cfs at or below 54 cfs = 10268.81 cfs

Summer season volume $10268.81 \times 1.9835 = 20368.18$ AF; rounded = 20400 AF