



State of Idaho

DEPARTMENT OF WATER RESOURCES

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

September 28, 2016

CITY OF BURLEY
ATTN: RANDY REITER
PO BOX 1090
BURLEY ID 83318

RE: Water Right Permit No. 45-7686 and 45-13411

Dear Mr. Reiter;

I would like to apologize for not getting back with you sooner in my response to your March 31, 2016 submittal of the additional information I requested for water right permits 45-7686 and 45-13411. I have been working with the Department's Staff Engineer and various other staff in the Department to determine the best approach for licensing the City of Burley's permits 45-7686 and 45-13411.

By issuing a license, the Department confirms the extent of development that has been established is in compliance with the terms of the permit. The review of the information you sent suggests that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed.

In reviewing the information you submitted, we have some items requiring explanation. It appears you estimated your peak instantaneous demand using a conversion factor from the City of Draper Master Plan. The City of Draper Master Plan was developed for a larger population base in a different climate zone with an entirely different water distribution system design. The peak instantaneous demand calculated for the City of Draper included the flow rate from its water source and the various storage tanks within its system. We also could not determine from the City of Draper Master Plan if it included fire flows or not. Therefore, the calculations developed in the City of Draper Master Plan for the instantaneous demand don't really relate to the City of Burley's maximum instantaneous demand requirement from its wells.

September 28, 2016

The 2015 Burley Master Plan provided the Peak Hour Demand in gpm on Page ES-2. The information you submitted has the total gallons diverted in 2008, which allowed us to calculate the average gallons per minute (gpm). We then determined the 2008 peak gpm by using calculations used in the 2015 Burley Water Master Plan. We used a ratio of the average gallons per day of 292 and peak hour gallons per day of 948 to create a peaking factor of 3.25 ($948/292 = 3.25$ peaking factor) to convert the average gpm for 2008 to peak gpm. This resulted in a flow rate of 6,405 peak gpm for 2008. We have determined that this 6,405 gpm is the maximum diversion rate required to supply the water needed for your system during the peak hourly demand. When you add in the 5,313 gpm for the irrigation wells, the total diversion rate for your municipal needs is 11,718 gpm or 26.11 cfs.

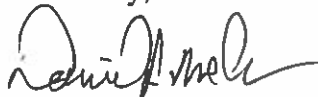
We agree with the well capacities for your system of 11,038 gpm for the culinary wells and 5,313 gpm for the irrigation wells. This provides a total system capacity of 16,351 gpm or 36.43 cfs. The existing City of Burley water rights allow a total of 31.82 cfs. These rights include all of the City of Burley wells, so this diversion rate can be diverted from any of the wells for either culinary or irrigation uses. Since the diversion rate beneficially used of 26.11 cfs is less than the 31.82 cfs already allowed by the existing municipal water rights, we cannot license permits 45-7686 and 45-13411 for additional municipal use, since no additional municipal use was developed.

However, we can license these two permits for fire protection. In your information, you stated the City of Burley needed 4,500 gpm or 10.03 cfs for fire flows. With a system capacity of 36.43 cfs, we can allow up to 4.61 cfs exclusively for fire protection from these wells ($36.43 \text{ cfs capacity} - 31.82 \text{ cfs existing municipal rights} = 4.61 \text{ cfs of developed capacity}$). Permit 45-7686 was recommended for 0.54 cfs by the field examiner, so you could apply to amend this permit to fire protection for 0.54 cfs. Permit 45-13411 allows up to 7.80 cfs, so you could apply to amend permit 45-13411 for 4.07 cfs for fire protection ($4.61 \text{ cfs} - 0.54 \text{ cfs} = 4.07 \text{ cfs}$).

Even though we cannot license these two permits for additional municipal use, we can cover the additional system capacity by amending these two permits to a fire protection use to cover the fire flow needs for your system. Amendments will also be necessary to authorize all of the City's wells as points of diversion. Please review the two amendment forms enclosed with this letter. The enclosed Application for Amendment forms depict the elements of the water rights as they will appear on the license when it is issued. Please review the amendment forms carefully. If you concur with the information presented, please sign the forms and return them with the \$100.00 filing fee for each form for a total of \$200.00 by October 12, 2016.

If you have any questions, please don't hesitate to contact me.

Sincerely,



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