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CIVIL and ENVIRONMENTAL ENGINEERING

DEPARTMENT OF
WATER RESOURCES

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July 9, 2007

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

Re: Application for Permit 22-13595
Teton County Trash Transfer Station Water Well

Dear Mr. Keen:

Thank you for discussing this matter with me last week. My firm designed the water well and prepared the demand estimates. I was forwarded a letter from Erin Retelle of the Idaho Department of Water Resources dated June 19, 2007. This letter was addressed to Teton County, Idaho and requested that the County provide calculations which show how the 0.09 cfs diversion rate for the new water well was arrived at. In our conversation you indicated we also need to address consumptive versus non-consumptive use.

The demand estimate was based on a plumbing fixture count for the new facilities to be constructed at the trash transfer station site. These facilities include a scale building, crew building, transfer building, and recycling building. The fixture counts are itemized as follows. Refer to the 2006 International Plumbing Code Appendix E Tables E103.3(2) and E103.3(3) for fixture load values and demands:

Scale Bldg. – toilet and lavatory (half bath), 2.6 FU (fixture units)

Crew Bldg. – toilet and lavatory (half bath), 2.6 FU

Crew Bldg. – lunch room sink, 1.4 FU

Total – 6.6 FU

For 7 fixture units and systems using flush tanks, Q = 11.8 gpm.

Transfer Bldg. – two yard hydrants at 6.5 gpm each = 13.0 gpm.

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Recycling Bldg. – toilet and lavatory (half bath), 2.6 FU
For 3 fixture units, $Q = 6.5 \text{ gpm}$.

Recycling Bldg. – one yard hydrant at 6.5 gpm = 6.5 gpm.

Total $Q = 11.8 + 13.0 + 6.5 + 6.5 = \underline{37.8 \text{ gpm}}$.

It is my understanding that all wastewater from these facilities will be discharged to septic tanks and soil disposal systems, therefore the use would be non-consumptive.

I hope this information adequately clarifies how the needed diversion rate was arrived at and the type of use. If you need more information or have any questions, please to not hesitate to call.

Sincerely,

ADVANCE ENGINEERING, P.C.



Steve Wonacott, P.E.
President

cc: Dawn Felchle, Teton Co. Idaho Commissioners Office
Dave Gustafson, Teton Co. Wyoming Engineering Dept.