

Edl, Michele

From: Terry Scanlan [TScanlan@spfwater.com]
Sent: Tuesday, July 07, 2009 3:24 PM
To: Edl, Michele
Cc: Lori Graves
Subject: RE: Permit No. 63-31862
Attachments: 20090707161759.pdf

Michele:

In response to your letter regarding well 3 capacity, thank you for pointing out the discrepancy. The reference to the 1300 gpm capacity was a mistake. The capacity is 1700 gpm as described in the calculations that followed. I have attached a corrected field exam page.

Regarding the present capacity of Wells 1 and 2, the 3.79 cfs capacity of Well 3 exceeds sum of the 63-31862 permit limit (3.29 cfs) and the 63-12125 license limit (0.33 cfs). Since the capacity of Well 3 exceeds the limits of these two domestic water rights in combination, we didn't think it was necessary to make a new determination of capacity at Wells 1 and 2. Such a determination can be made if requested, but I assume that the permit would still be licensed for 3.29 cfs.

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-----Original Message-----

From: Lori Graves
Sent: Tuesday, July 07, 2009 2:59 PM
To: 'Edl, Michele'
Cc: Terry Scanlan
Subject: Permit No. 63-31862

Michele,

This e-mail is a follow-up to your information request letter dated June 9, 2009 regarding clarification of the place of use SPF recommended in the licensing exam for permit 63-31862. After reviewing the subdivision plat maps, we agree with the Department that the NESE of Section 29 should be added to the licensed place of use so that the north tip of Lot 59, Block 3, Hillside Estates No. 5 is included. We understand that this change will require a licensing amendment.

Terry will be sending you a response tomorrow addressing the other items identified in your letter that needed clarified for licensing permit 63-31862.

Thanks very much for your attention to this matter Michele. We enjoy working with you.

Lori Graves
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7/7/2009

2. **Measurements:**

Wells 1 and 2. The pumping capacity for Well 1 is 1,200 gpm (2.68 cfs). The pumping capacity for Well 2 is 660 gpm (1.47 cfs). These amounts were determined by the Department when licensing water right 63-12125.

Well 3. The pumping capacity for Well 3 is 1,700 gpm (3.79 cfs) based on initial test pumping, system discharge pressure, and the associated pump curve. Calculations are provided below.

Pumping Water Level: Static water level at the time of test pumping was 138 feet. The well driller's report lists test pumping at 2400 gpm with 100' drawdown (24 gpm/ft drawdown) after 8 hours of pumping. At 1700 gpm, pumping water level will be 209 feet (138 feet static + 1700 gpm/24 gpm/ft).

Discharge Pressure: Static system pressure at Well 3 measured at the adjacent pressure reducing station on 4/8/09 was 80 psi. The system operator noted that summertime discharge pressure is 100 psi (231 feet)

Column Friction Loss: 8-inch column and 1 11/16th shaft at 1700 gpm = 10.7 feet per 100 feet. For 350 feet, total column friction loss is 37 feet.

Mechanical Piping Friction Loss: Discharge head and discharge piping from well to PRV station. Assume 1700 gpm, 8-inch pipe, steel pipe (C value of 120). For 300 feet equivalent length, loss is 17 feet.

Total Dynamic Head required at 1700 gpm is 494 feet (209 + 231 + 17 + 37)

Goolds 13 CHC pump curve lists 1700 gpm (3.79 cfs) at 496 feet.

Total pumping Capacity for Wells 1, 2 and 3 = 3,560 gpm (7.93 cfs)