

Bob Knutson,  
Superintendent- Heather Ridge Country Club

Dear Bob,

Thought I would drop you a quick note regarding acquisition of additional raw water supply to be used for watering of the golf course at Heather Ridge Country Club.

On October 18, 2010, I spoke with Scott Edgar, the water commissioner for the State of Colorado. He has jurisdiction for administering surface and ground water in the Heather Ridge area. Mr. Edgar has a reputation for being helpful, according to several engineers that I spoke with. Mr. Edgar indicated that it will most likely be a requirement that a water accounting system be developed in order to determine the best available options. This would require the services of an engineer familiar with water accounting methods. I would be happy to assist in this effort at no cost to Heather Ridge. We would still need the services of an engineer to complete the water accounting.

I am leaving for Phoenix on October 25, and will not be back until next May. Please contact me at 623-362-1923 at any time if I can be of any assistance.

I have tried to summarize some information regarding the Heather Ridge raw water system as follows:

#### **EXISTING RAW WATER SUPPLY SYSTEM**

There are currently 6 Heather Ridge lakes, #1, 4, 7, 11, 13, and 18 that are an integral part of the golf course. Each of these lakes has a decreed right with an appropriation date of June 16, 1982. These are very junior rights in the overall priority system. The total amount of decreed storage for all six lakes is 21.29 acre feet.

The golf course is currently irrigated by water pumped from two "non-tributary wells from the Arapahoe Aquifer. The water from one of the wells is discharged into Heather Ridge Lake #4. Additionally, some water from storm runoff flows into lake #4 from storm sewers nearby. Water from the other well is discharged into Lake #13. Some minor amounts of storm runoff may also flow into Lake #13.

Water from lakes #4 and 13 is pumped into the irrigation system for irrigation of the golf course. Water from lake #4 is used for that portion of the golf course located **north** of Illiff Avenue (front nine). The portion of the golf course located **south** of Illiff (back nine) is irrigated with water pumped from lake #13.

Water **from** storm runoff flows into all six lakes, from time to time, in varying amounts. Storm water that flows into Lakes #1, 7, 11, 18 flows out of the lakes when they full. The only control for these four lakes are "outlet control" via the

placement of stop logs in the spillways. When these lakes are full, the water flowing into the lakes from storm runoff flows out of the lakes into the natural drainage ways.

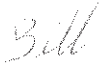
#### **POTENTIAL SOURCES OF ADDITIONAL RAW WATER SUPPLY**

There are two additional existing wells that could be overhauled and used to pump water from the Laramie Fox Hill aquifer. This water, however, has a high PH and thus would likely require the addition of chemicals in order to make this water suitable for irrigation of the golf course. It may be possible to blend this water with water from the Arapahoe aquifer in order to improve the water quality.

It may also be possible to capture some storm runoff if the contribution of non-tributary water from the Arapahoe aquifer is sufficient to permit an exchange of well water and surface run off.

Please let me know if I can be of any assistance.

Sincerely,



Bill Schuler