



Kenny Lake Ventures, LLC

April 20, 2017

To: CICWCD
From: Gary F. Player and H. Roice Nelson, Jr.
Subject: Recharge to Cedar Valley aquifer system

Ladies and Gentlemen:

We read an interesting article yesterday in the Iron County Today newspaper quoting Paul Cozzens concerning the recharge success at a gravel pit near the Cedar City airport. Paul stated that about 1,500 acre-feet of Coal Creek water have been directed into the pit, and that about 1,300 acre-feet of that water has infiltrated the gravel and “gone into the aquifer.” Paul stated that emergency flow into the gravel pit will cease by the end of April, once the majority of this year’s above average snow pack has melted.

The District has begun construction of several new recharge basins north of Highway 56 in order to capture water that would otherwise flow into Quichapa Lake and become too saline for use. Runoff into the recharge basins will be able to compensate for at least a portion of the net 7,000 acre-feet of water now being pumped in excess of the modeled average annual safe yield of 21,000 acre-feet. If 2,000 acre-feet of spring surface runoff can be directed into the aquifer, then we should attempt to find the “missing” 5,000 feet of water that would balance aquifer safe yield and excess pumping.

We propose that several wells can be developed to produce 5,000 acre-feet of groundwater each year from the bedrock aquifers east of Cedar City. For example, one well pumping 1,000 gallons per minute would produce slightly more than 4.4 acre-feet per day, or 137 acre-feet per 31 day month. Water from the well could be pumped directly into Coal Creek for six months, thereby providing 822 acre-feet of water per well to the recharge basins. Slightly less than five thousand acre-feet would be produced in six months by six wells, each producing 1,000 gallons per minute. That amount of water is about one third of the likely annual recharge to the bedrock aquifers within the Cedar City drainage basin defined by the Utah Division of Water Rights.

Six wells and associated surface equipment could be constructed and operated for less than \$1,000,000, providing 100,000 acre-feet of water over a twenty-year period at a cost of about \$1,000 per acre-foot. It’s worth a try!

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