Frequently Asked Questions

Q. What is the recharge idea all about?

A. Groundwater recharge [1]is the introduction of surface or ground water to groundwater storage such as an underground aquifer. Recharge or replenishment of groundwater supplies consist of three types:

1) *Natural Recharge* which consists of precipitation or other natural surface flows making their way into groundwater supplies;

2) *Artificial or Induced Recharge* which includes actions by man specifically designed to increase supplies in groundwater reservoirs through various methods such as water spreading (flooding), ditches, and pumping techniques; and

3) *Incidental Recharge* which consists of actions, such as irrigation and water diversion, which add to groundwater supplies but are intended for other purposes.

Q. Do we know if this would work to raise our water levels so we would not have to deepen our wells?

A. Nothing is for certain in the geophysical environment. The committee has a plan to study our area more in depth through the use of well log records and taking new static water level measurements to continue records first established by the USGS as long as about 30 years ago. Most of these readings were discontinued, probably because of continual use of domestic wells after they are put to use, as opposed to the seasonal use of irrigation wells that get an over-wintered rest.

Q. Has this recharge been tried in other places in Nevada and was it successful?

A. Yes, both by Carson City and Dayton with recharge wells that infiltrate surface water near the streambed and then pump it out in other points of diversion.

Q. How might this work in Ruhenstroth?

A. Three possible methods could work there. *Water spreading* consists of retention basins to hold back surface runoff, or ditches that convey water thru an area to be recharged; *Recharge pits* designed to take advantage of permeable soil or rock formations; *Recharge wells* which work directly opposite of pumping wells although have limited scope and are better used for deep, confined aquifers.

Q. Where would this recharge water come from?

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[1] Definitions taken from a publication of the Department of Natural Resources and Conservation entitled *Water Words Dictionary, A compilation of Technical Water, Water Quality, Environmental and water related terms. 1996*

A. This remains to be seen, however, there exists about 200 acres of water righted land in between Mustang Lane, Wiseman Lane, and the four stretches of Pinto Circle that have junior rights from the Carson River. These decreed rights have fallen into disuse since the area was homesteaded, but the remnants of the old ditch remain, which follows the contours along the hillside across from the old power dam. Known as the Rodenbah Pump, these rights have late priorities, meaning that they are regulated out of priority by about mid-July. Maps showing the parcels that have these decreed rights are viewable at the state engineer's website, linked from this website. This is a possible source for infiltration methods above, but it would mean reconstructing the means of conveyance, finding available sites, obtaining the proper permits, if any are needed, rebuilding the pump and replacing the ditch with a pipeline, etc, etc. Many obstacles exist, however, the source of water is "free and clear" and nothing it would take to accomplish this appears beyond reach. For this reason, we think that the idea is worthy of further study.

Q. I didn't know my parcel had water rights. . . what might they be worth? And what can I do with them?

A. That's a great question. And it has no simple answer. The value of a water right is determined on an acre-foot basis by the "market" for water based upon the need, source, location of the point of diversion (POD), priority, and somewhat on the viability of any applications to change to a new POD, place of use (POU), or manner of use (MOU). The county has a published rate approved for purchase of water of $2000 per acre-foot for surface water, and XXXX for ground water. The need for agricultural water is not great enough in the M/G area currently to make these rights very saleable for some time to come. This makes it more valuable probably to retain these rights *in situ* and use them according to the decree. Surface water rights are not forfeitable under current state water law like ground water rights are, so there is little danger or losing them in that manner; however, a constant vigilance is necessary as they are subject to Federal over-seeing, being regulated by the Federal Water Master, since the Carson Walker, and Truckee Rivers systems are interstate streams.

Q. How much water do I have, if I have any all?

A. This can be found by looking up your water-righted acreage on the Carson River Map according to your old parcel number. If your parcel is within the described area, it will be listed on the claim tabulations on the map. Let's say you have a parcel that is fully within the previously irrigated mapped acreage, showing one acre parcel size and one acre of water rights. That computes to the maximum duty allowed of 4.5 acre-feet per acre. It's very likely that only about 60% of that duty could be moved at all because of consumptive use limits or about 2.7 acre-feet. For the whole subdivision, it computes to 200 acres X 4.5 af/acre= 900 af X .60 or 540 acre-feet potentially. In other words, potentially over $1million in today's dollars. So, 2.7 acre-feet times $2000 equals about $5400. . . but, before you count your money . . . consider the following:

Q. Is there more to it than just this?

A. A *whole lot more.* The Carson River Decree as published in October 1980 still lists the original claimants of these rights, Claims 56, and 57e as Ida Ruhenstroth. Claims 57a, 57b, 57c, 57d, 58a, 58b, 58c, 58d, 58e, 58f, 58g, 58h, 58i, 59, and 60 lists successors to the Ruhenstroth family that purchased

large parcels that were first split off as the Ruhenstroth Ranchos. This list of owners didn't identify which acreage they owned, only that they owned some unknown portion of each claim-making it difficult to trace the chain of title forward to present day status. This can be done, but it requires a lot of legwork, somebody's time, and some money to bring together all the required information. Until then, if you receive a bill from the Water Master's office in Reno, just keep paying the annual assessed fees for water delivery, (that you can no longer get,) or your land can be sold for non-payment of these fees (-read *taxes*). Yes, in fact this asset, becomes a liability that you have no choice but to keep paying for.

Q. What other things should I consider?

A. Ever try to file a change application to move ground or surface water around in Carson Valley? The Pyramid Lake Tribe has recently made it their policy to file a protest with the state engineer against approval of any new appropriations and change applications in our watershed. In fact, the state engineer just approved a ruling on this very matter that you may hear or read about. Filing applications and going to public hearings can run up huge bills to try to present your case in its best light before the public. Most applicants and protestants are in fact unable to put together very strong cases due to their inexperience, unfamiliarity, and lack of financial resources to affirm, rebut, or deny their situations. That is, everyone except the Pyramid Lake Tribe, as their lawyers are fully funded by you and me, the taxpayers. Knowing this is why I state that these rights are perhaps best used in place and avoiding the legal snares and pitfalls of trying to move them downstream to say, Carson City, or Dayton. But, time is certain to play a part in the water rights value and usefulness. A worst case scenario would be that some federal law change or judge allows decreed surface water rights to be declared forfeited through non-use and the tribe would petition the court to do so. As individual small stakeholders, we would face an ominous task defending such a suit and the costs would likely far exceed the potential value.

Q. Is there more?

A. Yes. The reality is that these water rights are effectively abandoned, however, that is a voluntary action by the holder. Forfeiture is an administrative action taken by the state engineer but not applicable to surface rights. Water rights remain appurtenant to the land unless specifically reserved in a deed, which in effect severs the ownership between the landowner and the water. In order for a new owner acquiring water only and not with the land, he would be unable to put them to beneficial use until a change application moving them is approved by the state engineer. To date, no change applications have been filed that purport to move any of these rights off the Ruhenstroth Ranchos. It would follow then that when the land was first sold by the claimants, Ida Ruhenstroth, et. al., that no reservations were made and the rights were transferred to all successive owners by appurtenance. This means that most likely all present owners retain those original decreed rights, and it would have to be verified through a thorough search of the public records to see if in fact any reservations were made all the way from the time of the Ruhenstroth's or others clear to the present owners. Only a handful of lots have had any transfers of ownership filed and the rights still reside there as well.

Q. What then?

A. This could and should be done by a person with a great deal of experience in abstract research and water law. If title were brought forward into one or more larger blocks, then it would be a more usable, saleable, and viable asset. It could then perhaps be used to dedicate to the county in exchange for hookup fees or to offset part of the infrastructure costs of developing a centralized water system. There are probably more options that cannot be anticipated yet but one thing's for sure. . . nothing substantial will likely happen until ownership is consolidated into a manageable, cost effective, enterprisable entity.

Q. Very interesting. . . shouldn't we look into this a little bit more?

A. Well, the committee certainly thinks so. At our second meeting in June, we were presented with a proposal provided at the county's request to study the feasibility of an aquifer recharge project by a well known consulting firm with a respected reputation that has worked on the other recharge projects mentioned above. The funding request to pay for this study, about $33,000 was not pursued because of the cost and the professional opinion of the director of the Carson Water Subconservancy District that basically gave the idea a thumbs down. Ed James said that he thought the area was too large for recharge to work effectively and that if put in place, it would actually be the water system, leaving the same quality issues to deal with so "why not just put in a water system instead." The committee seemed in agreement that given the cost of the study versus the cost of the proposed water system infrastructure of about $12M, the cost benefit (0.275%) would certainly pan out. In view of competing needs around the county, our resident commissioner was disinterested in pursuing a request to the full county commission for approval. With the large number of survey responses indicating a need for more information on the recharge issue, we have not abandoned the idea entirely because it would make the cost of accepting the centralized water system easier to swallow if the study showed it to be unfeasible. Then, we wondered if we should pursue other sources, even cough up the money ourselves to pay for it. That would equate to just about $62 per parcel if every one of us contributed to the cost, about what your annual bill to the water master is. Seems like a reasonable request but it remains an issue at every meeting. If you have any thoughts on this matter, please bring them to the committee in writing at the county address: RWPC, PO Box 218, Minden 89423 or use this webmasters email address.

Q. What exactly is this study proposing to accomplish?

A. The plan is to pay for professional environmental consultants (engineer's, hydrologists, etc.) time to study the unique aspects of our area. They would research the well log records of the state engineer and the USGS records of water level measurements to determine the long term trend and analyze the aquifer for the water bearing strata, depth, recharge possibilities, contaminants, and to locate possible sites (i.e. vacant lots). They will look at potential sources of recharge water and attempt to make a scientific educational guess as to the feasibility of recharging the aquifer, the best method, and what the chances of success may be. They would consider the best option to avoid redrilling/deepening existing wells. A final report would be written to a minimum level of detail summarizing their professional opinions. It would not go any further than that.

Q. Is it too late to send in my water survey?

A. Our intended deadline is well past, however, there is still some usefulness to your responses if you complete all the questions.

Q. What is the pipeline work being done along East Valley Road all about?

A. It is a result of a development agreement between the county and the developer for water service to commercial parcels on the old sawmill property. It is installing 12" and 14" mainlines to bring additional water to the property and to the storage tank at the fairgrounds. It is being built to add infrastructure as part of the system that may eventually service the Ruhenstroth area and to help reduce the pumpage from the Ruhenstroth fire station well. This should only be a benefit to our residents as it is being built at no cost to the county.

Q. What happened to the original application that was made by the county on behalf of this same developer last fall that resulted in the first public meeting on these issues?

A. Application 74904 was withdrawn shortly after the December meeting due to the large public outcry. This application attempted to move 15 acre-feet from rights held in the town of Minden's wells and change the POD to our fire station well. The county has voluntarily reduced the pumpage taken out of this well significantly to about only 3 million gallons annually.

Q. How much would the water system proposed by the county cost and how would it be financed?

A. It's expensive enough to be a major concern to all parcel owners, whether or not you already have your well in. It's too soon to tell for sure. See the minutes of our meetings for more detailed answers, mostly from the 14 questions we addressed to the county at the September 11th meeting.

Q. How much does redrillng/deepening cost compared to this proposal?

A. One estimate to deepen was about $50 per foot for completion. That's usually about 100 feet or $5000. Just the hookup fees alone were grossly estimated to be between $4000 to $6000, then you have the monthly service fees, meters, and higher tax assessments to pay for the construction.

Q. I can't find my well log online at the state engineer's website. Can you help?

A. Yes. We have researched all the records of wells drilled nearby and been able to locate quite a few that have poorly indicated locations on them. The older the well is, the less likely you can easily find it. We plan to post this information by parcel number at this site soon when the information is compiled into the format we want. Check back here later.

Q. What is the committee doing now and when will we hear next from them?

A. We are studying maps, well logs, USGS records, our master parcel and street address list and compiling what we need into one database and spreadsheet so we can pick meaningful sites and contact those owners for static water level measurements as soon as is feasible, either late this year or better next March or April. We are attempting to get some baseline information similar to what the county's proposal could do to help us in our decision making process to approve or disapprove a water system.