January 4, 2012

Kent L. Jones, State Engineer
Utah Division of Water Rights
1594 W. North Temple Suite 220
P.O. Box 146300
Salt Lake City, UT 84114-6300

RE; COMMENTS TO THE BERYL ENTERPRISE GROUNDWATER MANAGEMENT PLAN DRAFT – OCTOBER 7, 2011

Dear Kent L. Jones,

The following ideas, comments, and observations are given to help simplify the water right processes and actions of the state and formulate the final DRAFT of the Beryl Enterprise Ground Water Management Plan (GWMP).

1. The DRAFT GWMP dated October 7, 2011 has taken several years to be formulated and published for public review; however, the public review time from October 2011 to January 2012 for those people affected is brief. Because the GWMP is scheduled to take 120 years to be fully put into operation it may be wise to designate the first year or two of plan implementation as time to discuss specifics of the plan, add specifics to the plan, and also gather specific area depletion data that could affect the outcome of the GWMP positively for the area residents. Then allow the GWMP to be modified from DRAFT stage to a FINALIZED stage using the new data, specific comments from the area water right holders and others to move forward in the best interest of the people for the balance of the 120 years.

Also a comment period and re-evaluation of plan specifics could be added to the plan with the possibility to modify the plan perhaps at each scheduled depletion reduction date so the plan can be updated via the public process for the duration of the plan at regular intervals.

2. An additional reason to delay implementation of this GWMP in early 2012 is that there seems to be a quandary with the Priority List and the first scheduled depletion reduction. The diversion of 14,500 acft appears calculated to equal 3,356 acft of depletion as posted on the list totals. There seems to be some erroneous totals on one side or the other since all of the other scheduled reductions are somewhere around 5,300 acft of diversion and 3,350 acft of depletion. We ask that these numbers be checked and corrected if needed.

As the GWMP depletion accounting method of the depletion basis is set within the plan for the 120 year period at 2.4925 acft of depletion per irrigated acre or per 4 acft feet of

diversion there is some confusion as to how 14,500 acft of diversion could only represent 3,356 acft of depletion.

It would help if the standard practices (mentioned in the GWMP) of depletion computing by the state engineer were published in the GWMP so the water users and public had some idea how the depletion computations work. A simple table of the allowed depletion per each individual use would be very helpful to each water user. If the allowable depletion factors are not published in the GWMP how could the users pre-plan to reduce the depletion based on a reduction of the particular use? There would be no published standard in the plan.

3. Since the safe yield of the Beryl Enterprise Hydrologic Water System has been established over time by experts using the latest and best scientific data available, the scheduled depletion reduction based on the same data is a figure that everyone should be able to reasonably rely to correct the "equilibrium of recharge" for the hydrologic system.

An additional factor that the water users can rely is the scientific depletion data published in the Research Report 145 "Consumptive Use of Irrigated Crops in Utah" 1996. Since this data was established using the best science of the time and has not likely been upgraded since, it is essential that the data is used consistently during the GWMP period so the water user can have a standard to rely. We support the use of using this report to calculate depletion values for all water right uses statewide.

The baseline amount of depletion of 2.4925 acre-feet for each irrigated acre is published in the Report 145 and has been adopted as the depletion basis and also used in the accounting method for this GWMP.

The "Safe Yield" of 65,000 acre-feet (acft) of depletion basis total for the GWMP was also established using the latest scientific hydrologic system reports for this area.

Based on those reports the GWMP currently has two related baseline depletion amounts. The depletion schedule establishes 65,000 acft of depletion that is taking place now basin wide to be used to compute the overall safe yield number of 34,000 acft of depletion. The GWMP also uses a 69,280 depletion baseline when referring to the irrigation portion of the legal water use totally based on irrigated acres. Any additional legal depletion total of all other uses is absent in the plan. These uses would be industrial, domestic, stockwatering, municipal, and other approved uses.

The plan fails to publish the depletion baseline for any other legal water use. Additional time should be allowed before implementation of the GWMP for public education and understanding of these important depletion issues once the baselines are made public and included in the Draft GWMP. The GWMP does point out that all water uses regardless of use will be considered as the depletion reductions are implemented based on priority. The GWMP also indicates that the State Engineer will maintain the Priority List for the "purposes of the groundwater management plan."

It appears that many of the water rights listed in the first reduction have no depletion associated or listed. This has caused considerable confusion as discussed in paragraph number 2 above. We hope that the Priority List can be completed before the implementation of the finalized GWMP, it is a serious matter. Once the list is sufficient then any yearly changes to the List could be published annually from that time forward.

4. Historically the annual average of the water depletion of the agricultural base has been established by practice and on average in all probability does not change much from year to year. This agricultural historic depletion base has not been specifically considered in the plan. The current plan has considered the depletion generally for alfalfa to be the full basis of the GWMP depletion baseline. The alternative would be the use of the actual historical depletion.

For the past two years a water commissioner has been appointed for the basin. It is our understanding that within his 2012 responsibilities he will collect a tabulation of the actual basin wide depletion for all of the current uses.

As projected through the year 2130 the GWMP could reduce the annual paper depletion by 31,000 acft. The paper depletion definition would include all of the legal depletion available to the water users. The difference of the actual and paper depletion could be significant because the GWMP in effect begins the accounting of the depletion reduction at the peak of the paper deletion total, not the actual depletion total. The actual depletion total is likely not available thus far, however, is scheduled to be available at the end of 2012.

We suggest a small change in the methodology of how the depletion is accounted. We agree that the GWMP must be organized to account for the total depletion of the overall legal water rights. We also agree to the accounting method proposed and the duration of the plan period. We would like to bring attention to the possibility that the anticipated measured water level response may not happen even though sufficient paper depletion cuts have taken place.

The plan projects that a 31,000 acft of actual reduced depletion is understood to make a difference of 1 to 2 feet of elevation decline of the underground water level in some areas of the basin annually based on the published USGS monitor well data. The 31,000 acre-feet of depletion reduction is represented to be a 48% reduction in the overall basin wide depletion in the GWMP.

Since the GWMP only reduces the overall depletion by approximately 20 percent during the 120 year GWMP period, and the overall 48% reduction is not reached, based on projections, until 2,205 it may be difficult to see a “measured water level response” (MWLR) during the 120 year reduction schedule. It may be impossible to see the MWLR during the 120 reduction schedule if the overall accounting begins at the annual 69,280 acft level or more of baseline depletion annually.

An example of the two scenarios would answer how many years an alfalfa grower, over the past 60 years, would have normally rotated into and out of alfalfa naturally or stayed in alfalfa perpetually.

The plan as written accounts the depletion at 2.4925 acft each year for each acre of irrigated land as if he grows alfalfa every year. That scenario 1 has the potential to create some paper depletion.

If on the other hand scenario 2 using the actual depletion on each acre using the actual depletion for each crop, each year, there is no opportunity to create paper depletion in the accounting.

Although the plan does show that the scenario 1 method will be used during the plan to account for the depletion reduction accounting, scenario 2 will be used to create the beginning depletion number.

Simple math projecting a scenario 2 over a 120 year period would show alfalfa grown 86 years, corn 17 years and small grain 17 years said to be a natural crop rotation. The difference in the overall depletion in the scenario 2 represents a 20% depletion reduction has already occurred.

We would suggest that the GWMP should use the actual depletion baseline established by the water commissioner and eliminate using the scenario 1 complication. Based on using the actual depletion tabulation of 2011 and 2012 for the beginning base and the continued method of depletion accounting a lot of confusion would be eliminated (we believe two years of data could be collected at the onset just as easy as one year). This data would then be used as the annual depletion baseline to begin the annual accounting of the depletion reductions. If this modification to the plan occurs the projections show that the MWLR may occur during the 120 year plan period because it eliminates any paper depletion.

This is an additional reason to defer the implementation of the finalized plan for at least one or two years while the actual depletion baseline data is collected, analyzed, and added into the plan. We strongly suggest that the actual baseline depletion total is used in the GWMP at the onset of the accounting of the depletion reductions. We can see no negative impacts if this suggestion is implemented.

5. The GWMP has incorporated the Priority list to manage and quantify the 10 specific projected reductions with the corresponding water rights. As the GWMP specifically/purposely includes decades of time that is planned to be used to reduce and help eliminated if possible some of the economic, social, and other effects to the area residents and the water right holders themselves, the overall period of 120 years should not be reduced.

There may be sufficient reason to require a moratorium to be written into the plan that could control any further scheduled reductions as written into the DRAFT. If the plan is

modified so the MWLR is likely to occur during the plan period, at the point in time after the 31,000 acre foot depletion reduction is reached, additional reductions should be suspended, not allowed, until sufficient time is given, to see if the current reduction level will achieve the MWLR sought after in the GWMP safe yield goals.

The depletion data collected in the next two years could indicate the historical depletion is already reduced by 20 percent, for example, based on the published standard practices of depletion computed by the state engineer, this action if incorporated into the plan design could eliminate a great deal of the paper depletion that may exist in the current plan. More important this action could also eliminate the need for some of the scheduled depletion cuts entirely.

Once the scheduled depletion reduction total is reached (the 31,000 acft target annually) a moratorium should go into effect. As discussed above the 31,000 acre feet depletion reduction was figured using the best scientific basis available. Sufficient time must be allowed for the accumulation of the annual depletion reduction to achieve the overall MWLR anticipated. This may take considerable additional time, the projections show that the overall 48% reduction would not be accumulated until year 2205, 75 years after the reduction schedule finishes. We assume that the projected MWLR will show a flat line on the water table measurement.

If at any point in time during the moratorium the MWLR shows an increase instead of a decline, the basis for the moratorium will be confirmed and some of the historical depletion reductions could be reversed. The logical action would be to reverse the last reduction group and allow sufficient time to track the water level trend beyond the normal weather related fluctuation of the underground water level over an extended period.

6. The agricultural community believes now that when the state reduces a right to the use of any state approved or perfected water right the action is a “taking” and the owner must be compensated. Surely the elimination of a water right based on priority that actually had sufficient water supply based on priority would be a catastrophe and the financial burdens should be shouldered by the people/state. For that reason the state should proceed with caution, wisdom, and decisions based on government by the people, not government based on government by policy of the state engineer when it comes to elimination of the right to use the water after the state has already approved the right.

7. For that and additional reasons the “Local Water District should manage certain depletion aspects of the GWMP. One of those aspects is the local “Water Bank”. The local water users have the right to create a local district to manage the local water use/depletions based on a “voluntary arrangement”. Even though the voluntary arrangement at first glance may appear to bypass priority, we are confident that priority will prevail as the baseline for all future depletion reductions. With this and other responsibilities the water users themselves could vote and decide how to achieve the depletion reductions. This may eliminate the responsibility to enforce the reduction from

the State Engineer or for drawing the line of who has the right to the use of the water and who does not erroneously. The voluntary arrangement would make the tough depletion decisions based on the safe yield established by the state engineer. Some rights could be authorized for use on temporary basis according to how the MWLR is trending as managed by the local district. The State Engineer would establish the general aspects and specific goals of the GWMP and then measure the District compliance.

The water bank would include the management of all water right depletions based on public depletion formulas and water allocation based on the Priority List. The state would continue to update the Priority List, manage any change applications of those rights, based on the laws of the people. This would simplify the water right permitting processes for the state engineer.

The completion of the water right priority list should also be simplified and may require a simplification of the water right depletion and acft values of the approved beneficial uses of the water right. Once the state engineer approved the initial water right beneficial uses, that approval process quantified the right. Those values should be the values that are allocated to each right on the priority list.

If a reduction of the water right has occurred in the past based on state engineer policy, the quantification of the right should be based on the original approved acft values regardless of the current use. Any water unused in an over appropriated basin should be considered to be an approved conservation practice and protect the right from forfeiture instead of a penalty that often times has reduced the water right in practice.

Any historical water right reduction by the state engineer is detrimental to economy of the state and creates confusion. It is estimated that $150,000,000 dollars of water right could be in jeopardy in this area because of the over allocation issues to be corrected by implementation of the GWMP. These issues are not confined to this area; this must be considered as a serious statewide issue.

The water right evaluation by the state engineer that takes place during the permanent change process has become too complex, controversial, very negative to the state economy, and the water users cannot rely that the outcome of any change application would reflect what the state has approved in the recent past. The confusion has reached a point where the state employees themselves are hesitant to give a written evaluation of any water right if asked to do so.

If a simplification of the method to quantify all water rights were to be used statewide the water right economy could also more easily be stabilized and less state time would be used to make the evaluation. Once the evaluation is made it should never be required again. We estimate that 99.9 % of the evaluations made could be final.

All of the approved and perfected water rights could be evaluated through all water right change processes on the same basis and the depletion could be easily assessed for each right for every GWMP state wide and universally understood.

The recent Supreme Court decisions would hold true to not allow the State Engineer the authority, if he ever had it, to reduce a water right during the change application approval process. The process could be simplified just a little and water right acft values would continue to be based on the beneficial use of the original approval as the law demands. The state engineer already set the acft values or the water right is not approved.

Once that little change is accomplished, and we are so very close to operating in that manner today statewide, the physical water allocation state wide could be based on priority only, as it should be, in harmony with the underlying water right laws of the state that establishes "first in time first in right" water right management. Simplified, the water right acft values would be based on the beneficial use originally approved with little or no exception.

With these simple additions to the DRAFT GWMP for the Beryl and Enterprise basin we do support the State Engineer to implement the GWMP that will help establish a stable water right economy state wide.

Sincerely,

Ken Tuttle

Water Right Specialist