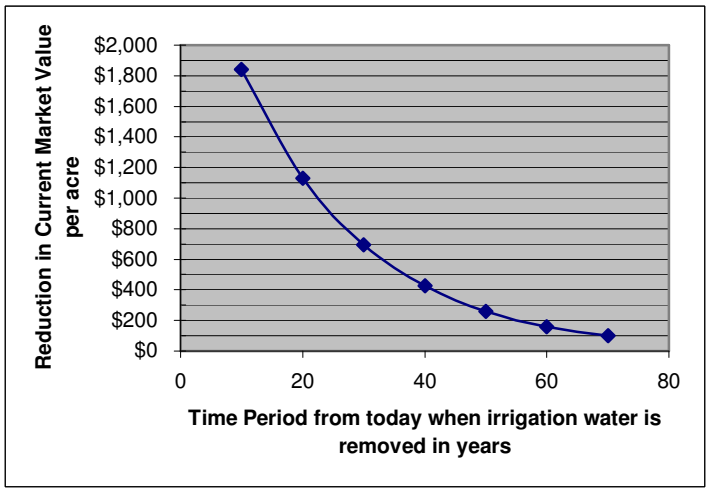
Utah Division of Water Rights

PUBLIC MEETING 3 – BERYL / ENTERPRISE GROUNDWATER MANAGEMENT PLAN

January 10th, 2008 3:00 pm Enterprise High School Auditorium, 565 S 200 E Enterprise, UT 84725

I Economic Analysis

- Land Value
  - The current market value of the land is primarily driven by the present value of the expected income stream generated from the use of the land.
  - For example:
    - Suppose that an acre of irrigated alfalfa produces a net return of $170 per year (USU extension farm budget data).
    - The Present Value of the stream of net returns of $170 at 5% per year in perpetuity is $3,400
  - Value of irrigated land per acre is between $3,000 and $3,500
  - Value of dry land per acre is between $250 and $500
- Reduction in Current Market Value of Land
  - The amount of reduction in the current market value of the land depends upon when irrigation water is taken off the land.
  - If irrigation water were removed from the land today, the current market value of the land would be reduced by about $3,000 per acre.
  - The following figure shows the reduction in the current market value of an acre of land (at an interest rate of 5%) if irrigation water were removed at a future date.



- Economic Impact of Losses in Getting To Safe Yield
  - Projected direct economic impacts.
    - 10 jobs, $922,656 household income, $3,896,247 regional gross output
  - Projected total direct and indirect economic impacts in Washington-Iron County Region.
    - 29.6 jobs, $1,348,198 household income, $5,326,837 regional gross output
- Economics in the management plan
  - The purpose of reviewing and evaluating economic impact is to assist in determining the timeframe for a "gradual implementation" of the groundwater management plan.
  - Helps water users and local community plan for the impacts from the implementation of the plan.

II. Proposed Groundwater Management Plan

The Management Plan will address the following concepts:

- Background / Objective
  - Purpose of the plan
  - Area covered by plan
  - Hydrologic & water right data
- Monitoring / Metering Program
  - A network of wells from which water levels will be measured and reported.
  - Water Use data (metering, acreage surveys, etc.) to calculate diversions and depletion per user.
- Water Regulation
  - Define methodology of the reductions of depletion by voluntary arrangement or priority date.
  - A three phase approach:

Phase	Percent Reduction	Cumulative Reduction	Time Frame	Cumulative Years
1	5%	5%	20yr	20yr
	5%	10%	20yr	40yr
2	5%	15%	10yr	50yr
	5%	20%	10yr	60yr
	5%	25%	10yr	70yr
3	10%	35%	10yr	80yr
	10%	45%	10yr	90yr

- Adaptive Management
  - Monitor groundwater levels to determine if safe yield has been achieved on a pre-determined schedule (e.g. five year interval).
  - If safe yield is reached during any phase of the plan then future phases will not be implemented.
  - This section will provide information on the ability to make future modifications to the plan based on new data or changes in hydrologic conditions.
- Voluntary Arrangements
  - This section will define the role and how voluntary arrangements can be adopted and incorporated into the plan.
  - Include references to adopted voluntary arrangements which might include:
    1. Water pooling concepts
    2. Financial compensation
    3. Protection of existing domestic (1 acft) & municipal use
    4. Land stabilization
- Special Water District
  - Authority to assess all water users.
  - Assist in management of the voluntary arrangements.
- Other Topics
  - Geothermal resources
  - Subsidence
  - Change application evaluation policy