



General plan update working group meeting # 3, 5:30 PM, Monday, 9-27-2010, Grand Center

Note: Finally, we are able to meet at the Grand Center, so we will bring FOOD and beverages for everyone.

AGENDA

- Review discussion and draft language for Diverse and Prosperous Economy plan topic
- Water quality and quantity
 - Characterization of water science done in Grand County.
 - Aligning the components of water resource planning to achieve the vision.
 - Government agencies
 - Local watershed groups
 - Grand County

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DIVERSE AND PROSPEROUS ECONOMY **DRAFT PLAN LANGUAGE**

Following are the 2nd round goals and strategies based on discussion at the 8-26-2010 and 9-13-2010 working group meetings that will eventually land in the *Diverse and Prosperous Economy* and the *Ecology, Water, and Air* (natural hazards) section of the plan. Please review and be ready to comment or suggest changes/deletions/additions. Note that I made changes based on our discussion and some written suggestions from Jeff Reinhart. We'll discuss those at Monday's meeting and I'll point out which ones were derived from Jeff's comments. I'll also bring redlined copies of the goals and strategies to the meeting.

Diverse and Prosperous Economy

Goal DPE1- Promote business sustainability, diversity, and a business friendly atmosphere to make the county attractive for a wide range of sectors.

Strategy DPE1.1 - Create and support an economic development authority (a single person/staff and/or a group) that would work to:

-develop and maintain an economic strategic plan,



- facilitate economic development projects,
- obtain funding and support from economic development programs, collect/disseminate -market information,
- and offer assistance for businesses or organizations seeking expand or move into the county.

Strategy DPE1.2- Designate areas on the future land use map for job generating land uses that will accommodate future economic activity in appropriate locations.

Strategy DPE1.3 Foster a business friendly-atmosphere where entrepreneurs can thrive.

Goal DPE2- Facilitate business development with development standards and review processes that are clear, predictable, consistent, fair, timely, and cost effective.

Strategy DPE2.1 - In consultation with businesses, developers, and land use applicants, staff will examine the land use code procedures to reduce the times an applicant has to appear before a review or decision-making body

Strategy DPE2.2 Ensure adequate opportunities for public involvement during land use development review.

Strategy DPE2.3 - In consultation with businesses, developers, and other land use applicants staff will review the land use code to ensure that standards and procedures are clear and do not contribute to disagreement or confusion.

Goal DPE3- Support the development and management of infrastructure necessary for a sustainable local economy.

Strategy DPE3.1 Support and participate in planning for drinking water and municipal and other domestic wastewater infrastructure.

Strategy DPE3.2 Continue to work with municipal governments to provide sewer, water, and transportation infrastructure to accommodate efficient growth in appropriate areas.

Strategy DPE3.3 Encourage expansion of municipal utilities and annexation into efficient and appropriate growth areas.

Strategy DPE3.4 Support and participate in planning for locally produced sustainable energy and its transport.

Strategy DPE3.5 Support and participate in planning efforts to improve electricity infrastructure throughout the county.

Goal DPE4- Encourage local agriculture and value-added agricultural production.

Strategy DPE4.1 Identify and map prime agricultural lands.

Strategy DPE4.2 Use open space incentives to encourage the growing of local food.

Ecology, Water, and Air (Natural Hazards)

Goal EWA1- Minimize impacts of natural hazards on properties and people.

Strategy EWA1.1- Avoid development in natural hazard areas unless no other option exists on a property in which case impacts on other properties nearby and hazards to occupants and structures on the property need to be mitigated.

Strategy EWA2.2- Maintain the incentives in the Land Use Code to avoid natural hazard areas.

Strategy EWA2.3- Improve base mapping for natural hazards planning.

Strategy EWA2.4- Clearly define which geologic hazards are most important to regulate and focus efforts on those.

TOPIC MATERIALS: WATER RESOURCE PLANNING

One well-supported draft vision statement developed from the July vision event and key pad polling verification session contemplates a watershed management approach for the future:

"Comprehensive management of aquifers and watersheds ensures plenty of high-quality water. Land owners, land managers, local governments, and water/sewer service providers work in partnership to manage watersheds to maintain or enhance water quality and quantity for current and future generations."

CHARACTERIZING AND SUMMARIZING WATERSHED SCIENCE IN GRAND COUNTY

Purpose of Discussion

1. Review the watershed science that we have for Grand County.
2. Make an initial judgment about how far we can go with the information we have and identify the shortcomings
3. Outline goals and strategies regarding the information piece of water resource planning.

Water is an illusive resource, especially in a groundwater system like the Spanish Valley. Planning for water requires knowing the characteristics of watersheds and understanding how they function and requires specialized scientific research.

This literature review is based on two main sources:

Source 1: A Summary of the Ground-Water Resources and Geohydrology of Grand County by Chris Eisinger and Mike Lowe, Utah Geological Survey, 1997

Source 2: The Hydrogeology of Moab-Spanish Valley, Grand and San Juan Counties Utah, with Emphasis on Map for Water-Resource Management and Land-Use Planning, Mike Lowe, Janae Wallace, Stefan M. Kirby, and Charles E. Bishop, Utah Geological Survey, 2007

Water Use and Discharge – Total County

Annually 315,000 acre feet discharge to the Colorado River and 108,000 acre feet discharge to the Green River. 3,859 acres in Grand County are irrigated with 19,808 acre feet per year. 79% of municipal, culinary and industrial water originates from groundwater sources. The 4,534 acre feet of potable water distributed in the following manner:

- 2776 for residential use
- 818 acre feet/year commercial use,
- 940 acre feet/year industrial purposes,
- 704 acre feet/year secondary uses

Water Use and Discharge Moab/Spanish Valley

Most discharge from Moab/Spanish valley is underground seepage, with 17,330 acre feet discharged to the Colorado River. Wells and springs discharge an estimated 6,400 acre feet per year. Recharge for the area totals 16,300 and is a result of runoff and snowmelt.

Threats-Contamination

Groundwater contamination originates primarily from the following sources:

- Mining
- Ag practices
- Junkyard/salvage
- Government facility/equipment storage- salts, mosquito abatement
- Cemeteries, nurseries, greenhouses and golf courses- fertilizers, pesticides, preservatives
- Oil/fuel storage tanks

Threats – Septic Systems

Septic systems in the Moab/Spanish Valley could threaten water quality through the discharge of nitrates from many dispersed systems. The state recommends a septic density of 10-20 acres per system. The central areas of the valley could withstand a greater concentration of dispersed systems. The outer margins and southeast portions of the valley are experiencing impacts from poorly engineered systems

EPA Sole Source Aquifers

A sole source aquifer provides at least 50% of the drinking water to the persons living over the aquifer. Service areas of the aquifer are defined by well location. The term applies to projects that are to receive federal financial assistance and which have the potential to contaminate the aquifer so as to create a significant hazard to public health.

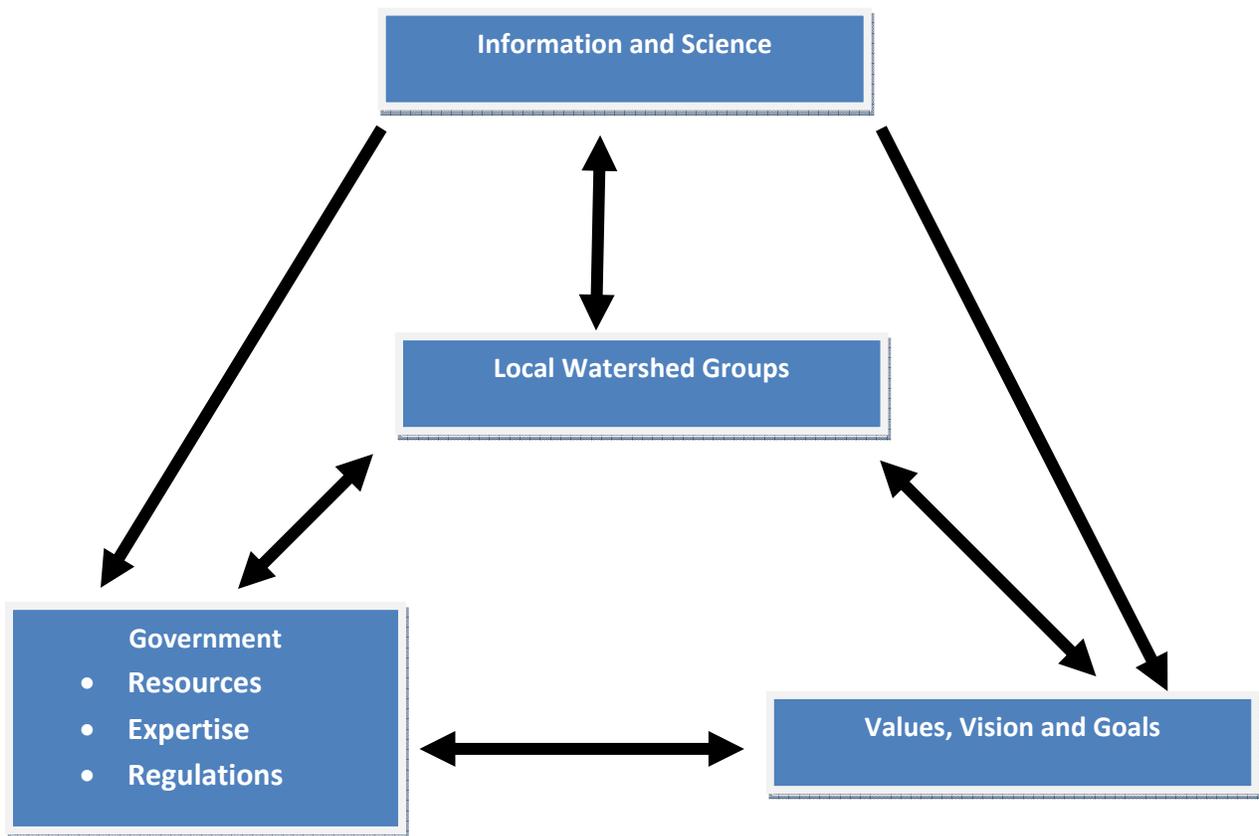
Questions for Discussion

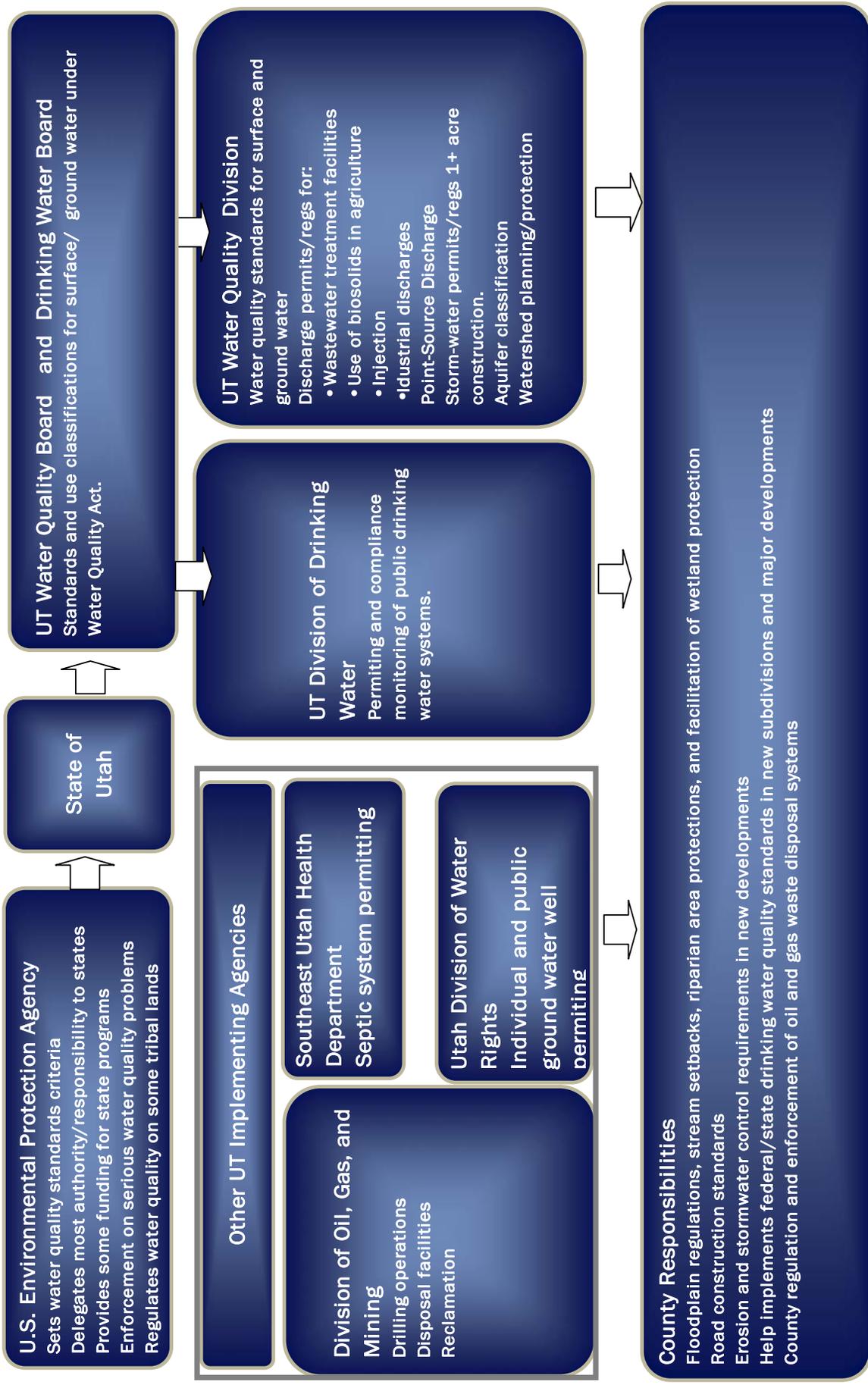
1. Do you think this is valid science?, If no, what are the shortcomings and what needs to be done about it?
2. Do you think others in the community are concerned about the validity and accuracy of watershed science?
3. What concerns do the findings summarized above raise for you?
4. Are there other, better sources that you know of?

ALIGNING THE PARTS OF WATERSHED PLANNING TO ACHIEVE A LOCAL VISION

Success in water resource planning requires far more than the county alone. Meanwhile, Grand County plays a relatively narrow role in the regulation of water resources. For example there are at least 5 State agencies and 2 federal agencies that set policy and regulate water quality in Grand County (see dark blue flow-chart pg 7). And finally, the whole purpose of water planning at the local level is to protect health and achieve outcomes for water resources that are in sync with the values of the community.

In order to achieve the vision statement, Grand County needs to align with government agencies and local watershed groups and use science that every agrees is valid.





Watershed Groups as the Bridge Between the County and the Water Resource Planning System

Local Watershed Groups

The Moab Area Watershed Council, will be recognized by the state later this year, with the Division of Water Quality overseeing and administering council functions. The council will monitor and aid local water quality projects, be in charge of creating a watershed management program, and facilitate meetings between local stakeholders (Canyonlands Watershed Council, Water/Sewer Districts, City and County Government) and state departments

Watershed Group's Can be Successful

There are numerous local watershed coordination groups throughout Utah that function similarly, and have the same mission as the newly formed Moab Area Watershed Council. The Provo River Watershed Council has facilitated the following projects:

- Alternative Wastewater Disposal Systems Rule Making and Implementation—Wasatch County Health Dept
- Cascade Springs Road Restoration—Wasatch Mountain State Park and USFS
- Wallsburg Watershed Plan—Wasatch Conservation District
- U.S. 189 Provo Canyon Highway Construction Project—UDOT Transportation

COUNTY WATER RESOURCE PLANNING IN PLACE TODAY

2004 General Plan

Public Lands Policy 2. Grand County will work to protect watersheds from activities and uses that are injurious to them. Public agencies are encouraged to adopt policies that enhance or restore watersheds for Moab, Spanish Valley and Castle Valley. Grand County will support classification of the aquifers for these valleys at the highest possible quality standard. The County encourages the agencies managing the public land in the EPA's sole source aquifer recharge areas for Moab, Spanish Valley and Castle Valley to define "proper functioning condition" to include capturing rainfall into the groundwater aquifer at nondegraded rates.

Sensitive Lands Policy 1. What are "sensitive" lands? The Sensitive Lands are defined by the Grand County Land Use Code to include: *public drinking water supply watersheds (recharge areas for the aquifer in the Glen Canyon Formation); floodplains...*

Implementation actions: Protect riparian corridors and recharge areas for public water supplies from incompatible uses.

Sustainable Agriculture Policy 1. Work to protect the land and water resource base needed to sustain local agriculture.

Public Facilities Policy 3. Protection of water quality in the Spanish Valley Aquifer from the effect of septic development in San Juan County is a matter of local public concern. Therefore, it is reasonable for GWSSA to provide sewer service (only) for single-family residential uses, not to exceed 1 ERU (Equivalent Residential Unit)/ acre for private land and 1 ERU per acre/ 10 acres of State Institutional and Trust Lands Administration (SITLA) land. Such development should be subject to all applicable Grand County standards. GWSSA sewer service in San Juan County should be limited to lands within the walls of the valley on the east and the west, and the southern limit of the large block of SITLA lands on the valley floor to the south.

2008 Land Use Code

PUD application requirement: Identification of lands that include public drinking water supply watersheds (recharge areas for the aquifer in the Glen Canyon formation); floodplains and riparian habitats);

Constrained lands on-site reduce the density of a subdivision and are required to be dedicated as open space for open space for all types of subdivisions.

Secondary Open Space includes "" public drinking water supply watersheds", which discourages development on them and reduces density.

Water Source Protection Overlay

Note: The WSPO has not been applied yet in Grand County

Sec. 4.5 -WSPO, Water Source Protection Overlay District

4.5.1 Purpose

The -WSPO, Water Source Protection Overlay District is an overlay district intended to protect ground water and the recharge basin for current and future public, culinary water supplies in Grand County. To this end, the -WSPO district shall be applied to recharge areas designated according to U.S. EPA Sole Source Aquifer recharge area and approved by the Utah Division of Drinking Water, or other resource specific study approved by the state engineer. Land uses within the -WSPO district are strictly limited and subject to conditions designed to prevent chemical or pathogen contamination of culinary water supplies.

4.5.2 Allowed Uses

Uses are allowed in the -WSPO district shall be as specified in the underlying base district; provided that:

- A. All uses shall be Conditional Uses and may be allowed only in accordance with the provisions of Sec. 9.11; and
- B. Uses constituting pollution sources, as defined under the Rules of the Drinking Water Division of the State of Utah, shall be denied.

4.5.3 Lot Design Standards

All development in the -WSPO district shall comply with the Lot Design Standards of the underlying zoning district; provided that the density of uses may be further limited as necessary to protect culinary water supplies from chemical and/or pathogenic contamination, and to ensure compliance with the Drinking Water Source Protection Rules of the Drinking Water Division of the State of Utah.

4.5.4 District Standards

All principal and accessory structures shall comply with the following requirements:

- A. A hydrological study may be required as a condition of any land use and/or development approvals, where such land use and/or development could reasonably harm culinary water supplies;
 - B. Animals and animal units may be restricted or prohibited in the -WSPO district as necessary to protect the underlying aquifer and to ensure compliance with the Drinking Water Source Protection Rules of the Drinking Water Division of the State of Utah; animal feeding operations exceeding one animal unit per 10 acres are prohibited;
 - C. All development shall be setback at least 100 feet from the normal high water line of springs, streams and major drainage ways;
 - D. No onsite wastewater disposal systems (i.e., septic systems) or wells shall be permitted, unless the applicant demonstrates to the satisfaction of the County that the risks to water quality are reasonably mitigated;
 - E. No underground storage tanks used to store hazardous substances shall be permitted;
 - F. All sewer mains and service lines shall be constructed in accordance with State of Utah, Division of Drinking Water Rule R309-515-6(4); all sewer mains shall be accepted by the applicable service provider for ongoing operation and maintenance;
 - G. All stormwater runoff from developed roads and lots shall receive water quality treatment prior to entering the stormwater system; provision shall be made for the ongoing maintenance and repair of all stormwater facilities be stipulated (See also Sec. 6.7, Drainage) ;
 - H. Development in the -WSPO district shall be subject to the County approval of a site specific construction practices plan that addresses such items as spill mitigations, handling of equipment lubricants and fuels, construction trash collection, etc.;
 - I. Construction plans shall include a construction stormwater pollution prevention plan that addresses temporary controls to be employed during construction activities; and
 - J. Protective covenants be adopted that serve to discourage the use of household herbicides, pesticides, and fertilizers with an explanation about Water Source Protection.
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- K. Additional conditions may be established at the time of development approval as necessary to accomplish the purposes of the -WSPO district.
 - L. **Alternative Compliance**
Deviations from the above standards may be approved by conditional use permit approved pursuant to Sec. 9.11 where the applicant demonstrates to the County Council satisfaction that the deviations or alternative standards will better achieve the purpose for the district than will the above standards.

7.8.3 Municipal and District Water Systems

If all or part of a proposed development is within 1320 feet of an approved public water system, then the applicant must obtain a written certification from the public water service provider stating that it is able to provide an adequate supply of drinking water with adequate quantity, quality and sufficient pressure to meet the needs of the proposed development based on the projected water usage of the development. Individual or common wells or other private water systems shall be permitted only when the subdivision boundary is more than 1320 feet from the nearest approved public water system able to serve the development.

Other Land Use Code duties of the county:

- Floodplain regulations, stream setbacks, riparian area protections, and facilitation of wetland protection
- Road construction standards
- Erosion and stormwater control requirements in new developments
- Help implements federal/state drinking water quality standards in new subdivisions and major developments
- County regulation and enforcement of oil and gas waste disposal systems

Questions for Discussion

1. How effectively do the 2004 General Plan and 2008 Land Use Code achieve the vision for comprehensive watershed management listed on page 4?
2. What additional goals need to be set to achieve this vision?
3. Should the county expand or reduce its role in water resource planning?
4. Do we want the county to begin regulating zoning (density, use, conditions) to protect recharge areas for the Glen Canyon and/or Valley Bottom aquifers?
5. Is the county prepared to use the Water Source Protection Overlay? Is it supported scientifically? Is it supported by the community and landowners?
6. If no to # 5, then what steps need to be taken?
7. LAST BUT NOT LEAST- How can the local watershed groups and government agencies help achieve the vision, and what is the county's role in this partnership