

AGENDA  
For the  
Southwest Regional Water Planning  
Steering Committee Meeting - Special Meeting  
April 05, 2004  
9:00 A.M.

Location: Bayard Community Center

- I. Roll call & Handouts
- II. Approval of the minutes
- III. 9:00am - 12:00pm - Developing alternatives with John Burkstaller, P.E. & Joanne Hilton, Daniel B. Stephens (DBS&A)
- IV. 12:00pm - 12:30pm - Lunch on site (catered by DBS&A)
- V. 12:30pm - 3:30pm - Developing criteria for ranking alternatives with Michael Bitner, CEO, DBS&A
- VI. 3:30 - 5:30 - Ranking alternatives with Michael Bitner
- VII. Public Input
- VIII. Membership Input

Next Meeting will be on April 22, 2004  
Public is invited to attend.

**Southwest Regional Water Planning  
Steering Committee Meeting – Special Meeting  
April 5, 2004  
Minutes**

**Attendees:**

Tom Bates- Planning Manager, Gerald Schultz- Black Range RC&D, Michael Bitner – DBS&A, John Burkstaller- DBS&A, John Kay- DBS&A, Joanne Hilton – DBS&A, Mary Helen Follingstad – NMISC, Tim Murrell – NMISC, Mary Alice Murphy- SC Daily Press, Vance Lee- Hidalgo County, Wayne Ericson- Engineers Inc., Howard Hutchinson- SFS&W, Alex Thal- Catron County, Sally Smith – GRIP, Henry Torres – Grant County, Mary Barton Risely – UGWA, Richard Kirby – Environmental Benefits, Robert M. Esqueda – Town of Silver City, M.H. Salmon – at large and Charity Teague- City of Deming

**Call To Order/Introductions:**

Mr. Bates called the meeting to order at approximately 9:15 am, and introduced the members of the Steering Committee, New Mexico Interstate Stream Commission, and Daniel B. Stephens and Associates.

**Minute Approval:**

Mr. Bates asked for a motion to approve the minutes from the February 26<sup>th</sup> meeting. It was motioned to approve the minutes by Alex Thal, seconded by Gerald Schultz, and carried unanimously.

**Overview of Decision Analysis Process**

Mr. Bitner defined the purpose and goals of the Decision Analysis Process, as well as how to make a decision and develop a strategy. Alternatives were considered for the following OSE planning categories:

- ID – Infrastructure Development
- WC – Water Conservation
- WQ – Water Quality
- WS – Water Supply Development
- WM – Water Management

**Definitions of Preliminary Alternatives**

The following are proposed alternatives for meeting water resource needs of the Southwest New Mexico water-planning region. The original alternatives are listed on the following page. Any modifications or additions mentioned from the April 5, 2004 meeting are noted underneath each section.

**Water Resource Infrastructure Development**

- *IDI Gila ASR: Divert New Mexico's Gila/San Francisco River Entitlement for aquifer storage and recovery.* Divert Gila water through a pipeline, infiltration gallery, or small side stream reservoir to an aquifer storage and recovery project to store the water in underground basins.

- *ID2 Gila Surface: Divert New Mexico's Gila/San Francisco River Entitlement into main stem or side canyon reservoirs.* Divert Gila water and store it in surface reservoirs
- *ID3 WW Reuse: Treat and reuse wastewater.* Recycle municipal wastewater for landscape irrigation.
- *ID4 Recycling: Recycle commercial and residential on-site water for nonpotable uses.* Implement the use of residential gray water systems and/or recycle commercial or industrial water for landscaping or industrial uses.
- *ID5 Desalination: Desalinate water in southern basins.* Pumping and treating brackish groundwater from the southern basins will increase the water supply in the areas near the desalination plants.
- *ID6 Non-Gila Surface: Develop additional surface water.* Several projects have been considered in the past on rivers in the region other than the Gila. Stakeholders should identify specific projects that the region may wish to consider.

***Suggested Additions:***

- *ID7 - Rain Harvesting*
- *ID8 - Enhance Surface Recharge*
- *ID9 - Large Scale Importation*

**Water Conservation**

- *WC1 Municipal: Implement municipal water supply conservation.* Municipalities can identify conservation opportunities and sources of inefficiencies. Leaks are often the source of significant water losses in municipal systems. Public education, promotion of xeriscaping (use of low-water-use plants in landscaping), and/or increases in block water rate structures can be used to foster household conservation. This alternative could also include requirements for water conservation in new subdivisions and water restrictions during drought.
- *WC2 Agricultural: Implement agricultural conservation measures.* Conservation measures such as laser leveling or drip irrigation can greatly improve water use efficiency in the agricultural sector. Lining ditches and encasing delivery systems will reduce the amount of water lost to seepage and evaporation between the headgate and the delivery point for crops. The fact that water savings in this area will also reduce the amount of recharge to the shallow groundwater and may reduce return flow credits must be considered.

***Suggested Additions:***

- *WC3 - Industrial*

**Water Quality**

- *WQ1 Protection: Identify, protect and monitor groundwater and surface water vulnerable to contamination.* Numerous initiatives could support this alternative. For example, drafting and implementing source water and wellhead protection plans for key water supplies would define appropriate land uses near water supply

wells, thus ensuring that nearby activities do not lead to contamination of the water supply. Aquifer protection programs in particularly sensitive areas as well as nonpoint source pollution control projects could potentially contribute to protecting water quality in the region.

- *WQ2 Replace Septic: Construct wastewater treatment systems to replace septic tanks.* Replacing septic tanks with community or individual liquid waste treatment systems may protect future water supplies by ensuring that septic systems do not contaminate shallow groundwater.

### **Water Supply Development**

- *WS1 Watershed Mgmt: Manage watersheds to improve yield and reduce the risk of fire.* Active watershed management can in some cases increase the amount of water in a watershed that is available for meeting future water demand. If done properly, thinning can contribute to watershed health and reduce the risk of catastrophic fire.
- *WS2 Cloud Seeding: Implement cloud seeding program.* This technique is used in some western states to generate winter precipitation in mountainous areas. Silver Iodine or dry ice particles are injected or launched into an upper layer of clouds.
- *WS3 Remove Exotics: Remove exotic vegetation and revegetate to reduce riparian evapotranspiration.* The presence of exotic species such as salt cedar can greatly increase evapotranspiration and thus reduce the water supply. Replacing this type of exotic vegetation with native, low-water-use vegetation may improve yields from the watershed.
- *WS4 Groundwater: Develop additional groundwater.* Municipalities and other subdivisions of the state can reserve water for the future to guarantee that it will be available for the region when the need arises. This alternative should include specific projects currently under consideration, such as well field relocation, expansion, or construction.

#### ***Suggested Modifications:***

- *WS2 – Change “Cloud Seeding” to “Weather Modification”*
- *WS3 – Change “Remove Exotics” to “Restore Riparian Vegetation”*

### **Water Resources Management**

- *WM1 Water Banking: Establish a local water bank.* Some regions have recommended developing a local water bank to allow and manage temporary water transfers to meet short-term need. The New Mexico Office of the State Engineer (OSE) has jurisdiction over water transfers and leases and therefore would be involved in the process. Water banking may not be applicable in the areas where OSE administrative criteria limit transfers from one area of a basin to another.
- *WM2 Regional Authority: Establish a regional water management authority.* This entity (e.g., a water user’s association) would act as a fiscal agent for and provide water resource management, coordination, and distribution of the Gila/San Francisco River Entitlement and other regional-scale projects.

- *WM3 Border Groundwater Mgmt: Develop a border groundwater management plan.* The purpose of the alternative is to protect groundwater supplies in the Mimbres, Playas, and Animas basins, which are located on the international boundary with Mexico. This alternative would include modeling and monitoring to evaluate the impact that groundwater pumping in Mexico has on New Mexico groundwater supplies.
- *WM4 Groundwater Mgmt Plans: Develop local groundwater management plans.* This alternative will allow for control and management of groundwater at the local level. In the basins where the OSE already has well developed administrative criteria, a groundwater management plan could be developed to recommend critical management areas if necessary. In areas where no administrative criteria exist, these plans could assist in maintaining water levels and sustaining the groundwater supply.
- *WM5 Domestic Wells: Restrict installation of new domestic wells and/or the amount of pumpage from existing domestic wells in areas outside of the Gila.* This would allow the municipalities and counties to implement ordinances that identify and regulate the number of private wells located near and potentially impacting municipal water supplies or other senior water rights holders.
- *WM6 Declare Groundwater Basins: Petition the OSE to declare undeclared groundwater basins in the region.* Once the OSE has assumed administrative control of these basins, water suppliers in the region could begin submitting applications to appropriate available water for future use. Declaration of the basins would protect existing users from impairment from future users.
- *WM7 Gila In-Stream: Set aside some of the captured New Mexico Gila/San Francisco River Entitlement for instream flow and environmental purposes in the Gila.* Gila Central Arizona Project (CAP) water would not be diverted, but would legally be reserved for instream use.
- *WM8 Water Availability Requirement: Ensure that future growth optimizes us of water resources and protects local social and cultural values.* An example is local or county ordinances that require stringent proof of available supplies as a prerequisite to approval of new developments.

***Suggested Additions:***

- *WM9 Water Rights Re-allocation*
- *WM10 Water Rights Administration*

## Ranking Alternatives

Daniel B. Stephens and Associates assisted the Steering Committee with the ranking of alternatives. Performance Criteria was established for the following categories:

- Equity of Costs and Benefits
- Regional Political and Stakeholder Support
- Social and Cultural Impacts
- Economic Vitality of Region (Economic Impact)

The performance criteria and scores are outlined below.

□ ***Equity of Costs and Benefits***

- 1-2 Much of cost paid by those who won't benefit  
 3-4 Cost paid by many users in one area of the region or by limited users region-wide  
 5-6 Cost paid by moderate number of users in most of the region, part of the region does not pay  
 7-8 Cost paid by moderate number of users throughout the region  
 9-10 Majority of cost paid by those who benefit, insignificant cost to rest of region

ID1	9	ID8	10	WS1	9	WM4	5
ID2	9	ID9	9	WS2	4	WM5	5
ID3	7	WC1	6	WS3	5	WM6	10
ID4	9	WC2	9	WS4	7	WM7	9
ID5	6	WC3	9	WM1	9	WM8	9
ID6	9	WQ1	9	WM2	5	WM9	8
ID7	10	WQ2	5	WM3	5	WM10	8

□ ***Regional Political and Stakeholder Support***

- 0-2 Limited support, high opposition  
 3-4 Limited support, limited opposition  
 5-6 Modest support, modest opposition or high support, high opposition  
 7-8 Modest support, limited opposition  
 9-10 High support, limited opposition

ID1	6	ID8	9	WS1	9	WM4	6
ID2	5	ID9	5	WS2	6	WM5	3
ID3	9	WC1	7	WS3	7	WM6	5
ID4	9	WC2	9	WS4	7	WM7	5
ID5	7	WC3	8	WM1	9	WM8	5
ID6	5	WQ1	7	WM2	6	WM9	6
ID7	9	WQ2	5	WM3	8	WM10	7

□ ***Social and Cultural Impacts***

- 0-2 Enhances values for few, harms values of many
- 3-4 Enhances values for some, harms values for few
- 5-6 Does not significantly affect social/cultural values of anyone or enhances values for many but also harms values of many
- 7-8 Enhances values of many, harms values of some
- 9-10 Enhances values of many, harms values of few

ID1	6	ID8	9	WS1	9	WM4	6
ID2	5	ID9	5	WS2	6	WM5	3
ID3	9	WC1	7	WS3	7	WM6	5
ID4	9	WC2	9	WS4	7	WM7	5
ID5	7	WC3	8	WM1	9	WM8	5
ID6	5	WQ1	7	WM2	6	WM9	6
ID7	9	WQ2	5	WM3	8	WM10	7

□ ***Economic Vitality of Region***

- 0-2 Very harmful to economy of region: loss of jobs, property values, revenue
- 3-4 Harmful: will decrease economic and job growth
- 5-6 No economic impact or minor benefits/impacts that largely offset each other
- 7-8 Large one-time economic benefit to region or minor long-term economic benefit
- 9-10 Long-term economic benefit to region

ID1	9	ID8	7	WS1	9	WM4	6
ID2	7	ID9	10	WS2	7	WM5	5
ID3	6	WC1	7	WS3	9	WM6	5
ID4	6	WC2	10	WS4	9	WM7	7
ID5	7	WC3	9	WM1	8	WM8	5
ID6	5	WQ1	8	WM2	7	WM9	9
ID7	7	WQ2	8	WM3	6	WM10	8

Attached is a graph charting the above results. The results of these scores will be summarized at the April 22, 2004 meeting.

