Historical Archive G-4

Special Meetings

Workshops
Retreats
Joint Sessions

MIDDLE RIO GRANDE WATER RESOURCES BOARD WORKSHOP

MAY 10, 2000
9:00am to Noon
Middle Rio Grande Council of Governments
Third Floor Conference Room
317 Commercial NE
Albuquerque, New Mexico

1. Introductions - Larry Blair, Chair, Middle Rio Grande Water Resources Board

2. Overview of Middle Rio Grande Water Plan - Dennis R. Foltz, Executive Director, MRGCOG and Jim Gross, Director of Water Planning

3. Middle Rio Grande Water Plan Tasks

4. Structures

5. Where do we go from here?

The purpose of this workshop is to provide a comprehensive overview of the Middle Rio Grande Water Plan for the Water Board members. Please RSVP to Linda Jackson at 247-1750 or email ljackson@mrgcog.org as to you attendance.

MIDDLE RIO GRANDE COUNCIL OF GOVERNMENTS'

MIDDLE RIO GRANDE WATER RESOURCES BOARD

MEMBERS	ALTERNATES
City of Albuquerque Larry Blair, *Public Works Director,* **Chair**	**City of Albuquerque** Lawrence Rael, *Chief Adminstrative Officer* or John Stomp, *Manager, Water Resources Division*
Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Danny Hernandez, *Board Member*	**Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)** Vacant
City of Belen Richard Jaramillo, *Councillor,* **Vice Chair**	**City of Belen** Eric Hill, *Planner* or Julie Baca, *Zoning Administrator*
Bernalillo County Mary Murnane, *Planner*	**Bernalillo County** Jeff Peterson, *Geohydrologist*
Town of Bernalillo Charles Aguilar, *Mayor*	**Town of Bernalillo** Vacant
Village of Bosque Farms Kenneth Bishop, *Councillor*	**Village of Bosque Farms** Vacant
Village of Corrales Ed Richardson, *Representative*	**Village of Corrales** Vacant
Isleta Pueblo John D. Sorrell, *Tribal Hydrologist*	**Isleta Pueblo** Vacant
Village of Los Lunas Betty Behrend, *Utility Director*	**Village of Los Lunas** Phillip Jaramillo, Village Administrator
Village of Los Ranchos de Albuquerque Marianne Woodard, *Representative*	**Village of Los Ranchos de Albuquerque** Vacant
Middle Rio Grande Conservancy District Hector Gonzales, *Board Member*	**Middle Rio Grande Conservancy District** Joseph Griego, *Board Member* or Subhas Shah, *Chief Engineer*
City of Rio Rancho Henry Pacelli, *Utility Commissioner*	**City of Rio Rancho** Larry Webb, *Director of Utilities*
Sandoval County William Sapien *Commissioner*	**Sandoval County** Bradley Stebleton, *Senior Planner*
Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) David Stoliker, *Executive Director*	**Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)** Vacant
Valencia Co Aurelio "Al" Padilla, *Commissioner*	**Valencia Co** James Fernandez, *County Manager*

EX-OFFICIO MEMBERS

Middle Rio Grande Water Assembly Lee Brown, *Chairman*	**Middle Rio Grande Water Assembly** Frank Robinson, *Vice Chairman*

ELIGIBLE VOTING GOVERNMENTS NOT REPRESENTED

Cochiti Pueblo	**San Felipe Pueblo**
Village of Tijeras	**Santa Ana Pueblo**
Sandia Pueblo	**Santo Domingo Pueblo**

EX-OFFICIO MEMBERS NOT REPRESENTED

Rio Jemez Subregion	**Rio Puerco Subregion**

Regional Water Planning Template
(modified after NM Interstate Stream Commission, 1994)

The template for a regional water plan was designed to provide uniformity in developing regional planning documents. The Commission expects to use the plans to ensure an adequate supply of water for each region of the state. This objective will be enhanced if plans are based on the same format and assumptions and are comparable to one another. The template contains a listing of the topic headings for consideration and, where applicable, addressed by every regional planning entity.

Also, a Regional Water Planning Checklist is available for planners upon request to the Interstate Stream Commission. The checklist is organized to correspond with the Regional Water Planning Template. The checklist is not intended as a list of requirements. Rather, it is intended as a tool to help planners ensure that all pertinent considerations are addressed.

Executive Summary

The Executive Summary is likely to be the part of the plan which will be most widely read and disseminated publicly. The summary should therefore be a brief, clearly presented, short version of the findings and recommendations of the plan, which could be read and understood separately from the fully documented version. It should contain a statement on public participation efforts and results, statements on water supply and water demand and the plan's final recommendation to reconcile the two.

- Description of planning process
- Findings
    - Water supply
    - Water demand
- Water plan alternatives
- Recommended water plan for the region

Introduction

The introduction should provide the reader with the following:

- Individuals involved in water plan development
- Previous water planning in the region
- The water plan's contents

Documentation of Public Involvement in Planning Process

- Interstate Stream Commission-sponsored water workshop
- Background summary of region prepared for public dissemination
- List of stakeholders and participants

Strategy chosen to maximize public involvement

- Use of the media
- Press releases
- Outreach effort tailored to specific communities
- Project time table
- Public meetings

Background Information

a. Description of the region

- Location, boundaries
- Geography, landscape
- Climate
- Natural resources
- Major surface and groundwater sources
- Demographics
- Economic picture
- Land ownership & land use

b. Historical overview of water use in region

Regional Water Planning Template
(modified after NM Interstate Stream Commission, 1994)

Legal Issues

a. Water laws relevant to region
- state
- federal
- tribal

b. Federal legal issues
- Federal reservations
  - Indian reservations or pueblos
  - Other federal enclaves
- Federal environmental law issues
- Treaties
- Federal water projects

c. Water quality standards
- Federal
- State
- Municipal
- Tribal or pueblo

d. Relevant lawsuits
- Court decrees
- Pending adjudications

e. Water rights administration policies specific to the region
- Duty and consumptive use figures
- Ground water basin criteria
- Compact obligations

f. Special districts

g. Legal issues needing resolution

h. Local conflicts

Water Resources Assessment for the Planning Region

a. Water supply
- Surface water
  - Precipitation data
  - Drainage basins and watersheds
  - Streamflow data
  - Evaporation data
  - Surface water yields
  - Storage reservoirs and conveyance canals
  - capacity
  - evaporation
  - useful life
- Ground water
  - Geologic data
  - Hydrogeology data by aquifer
  - Well field data
  - Ground water yields by aquifer
    - Sustainable yields
    - Drawdowns by level of development

b. Water quality issues
- Assess quality of water sources
- Identify sources of contamination
- Assess feasibility of water quality management plans
  - Improving water and land-use practices
  - Water treatment alternatives
  - Wastewater treatment

c. Summary of water supply considering legal limitations

Regional Water Planning Template
(modified after NM Interstate Stream Commission, 1994)

Water Demand

a. Present uses
- Type, location and ownership of water rights
- Water rights by category of use
- Water diversions by category of use
- Water depletions by category of use
- Public water supply systems data
- Irrigation practices
- Conveyance losses
- Return flows
- Lake evaporation
- Riparian uses/instream flows

b. Future water uses by 40-year planning horizon
- Projected future demographics
  - Population
  - Future land use
  - Economic growth and jobs
- Projected water demands by category of use
- Future sources of water supply
- Projected changes in water supplies in region
- Management alternatives to increase supply
  - Changes to existing works
  - Replacement of existing facilities
  - Water banking
- Emergency contingency plans
  - Drought considerations
  - Flood considerations

c. Water conservation
- Conservation measures
- Suitability of each measure assessed for region
- Amounts and timing of water saved
- Effect on return flows
- Difficulty (including costs) and timing of implementation

d. Summary of present and future water demand

Water Plan Alternatives

a. Description of Alternatives - Each proposed alternative should i
and practical means by which the supply of the region may be rec
future demands of the region, as analyzed above. Alternatives sh
- Management component
- Water conservation component
- Water development component
- Infrastructure development component
- Water quality management plan

b. Analysis of Alternatives - Each alternative should be analyzed c
- Social issues and evaluation (public welfare)
- Political issues and evaluation
- Institutional evaluation

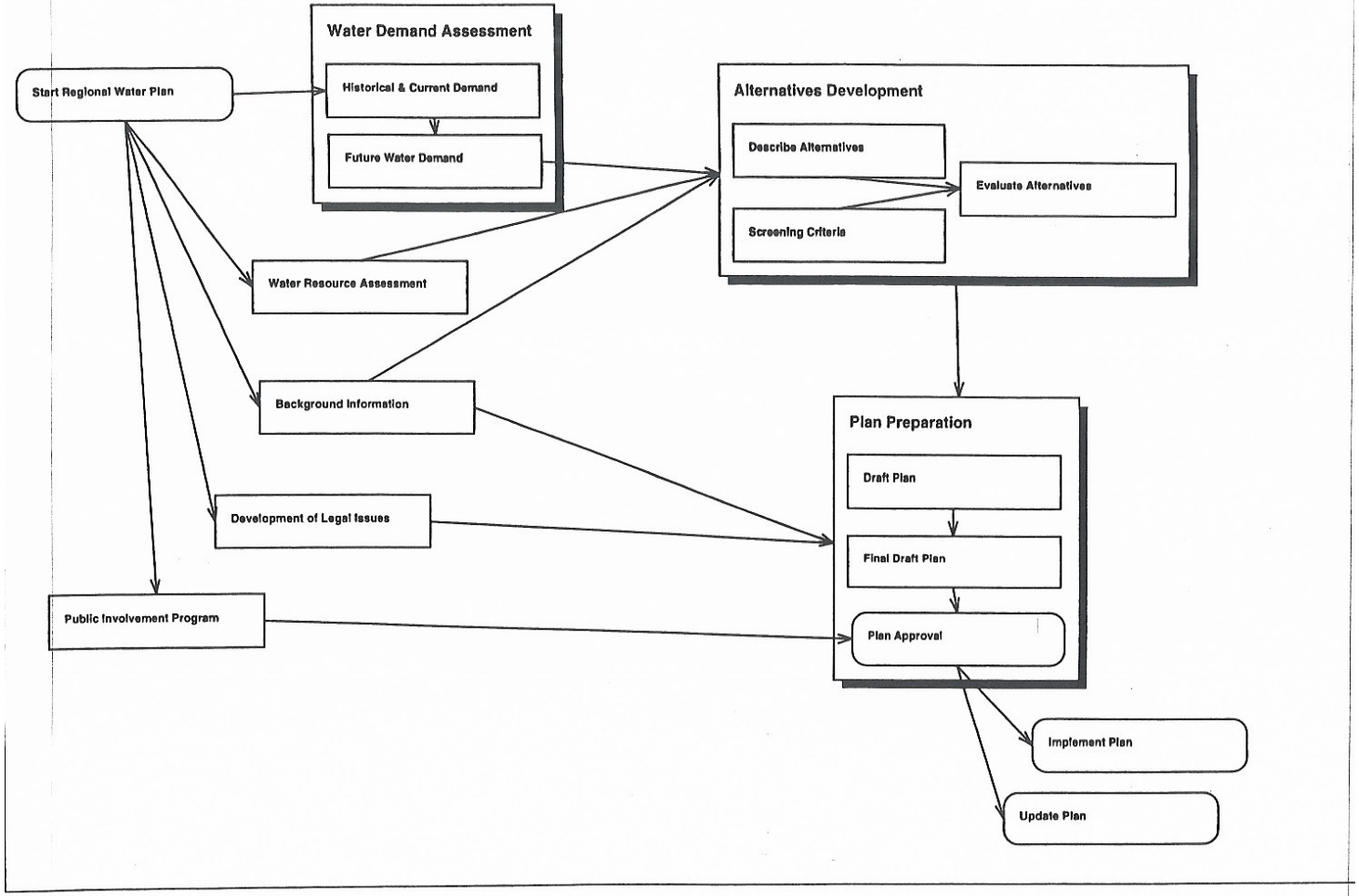
Regional Water Planning Template
(modified after NM Interstate Stream Commission, 1994)

Evaluations

Each proposed alternative must be evaluated in accordance with the standards

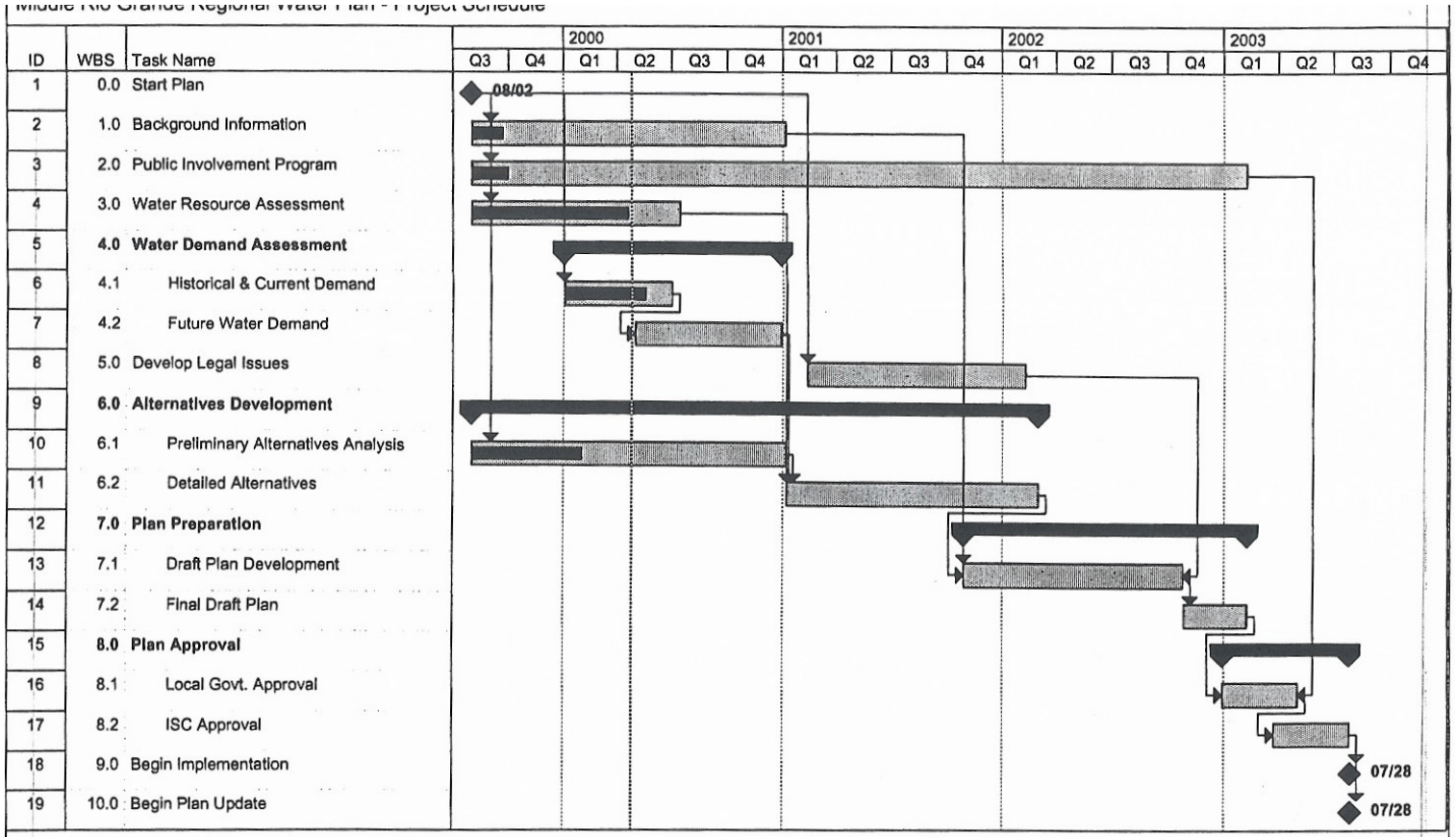
- Technical feasibility
- Political feasibility
- Social and cultural impacts
- Financial feasibility
- Implementation schedule
- Physical, hydrological and environmental impacts

Middle Rio Grande Regional Water Planning Program
Major Task Relationships



Middle Rio Grande Council of Governments
April 12, 2000

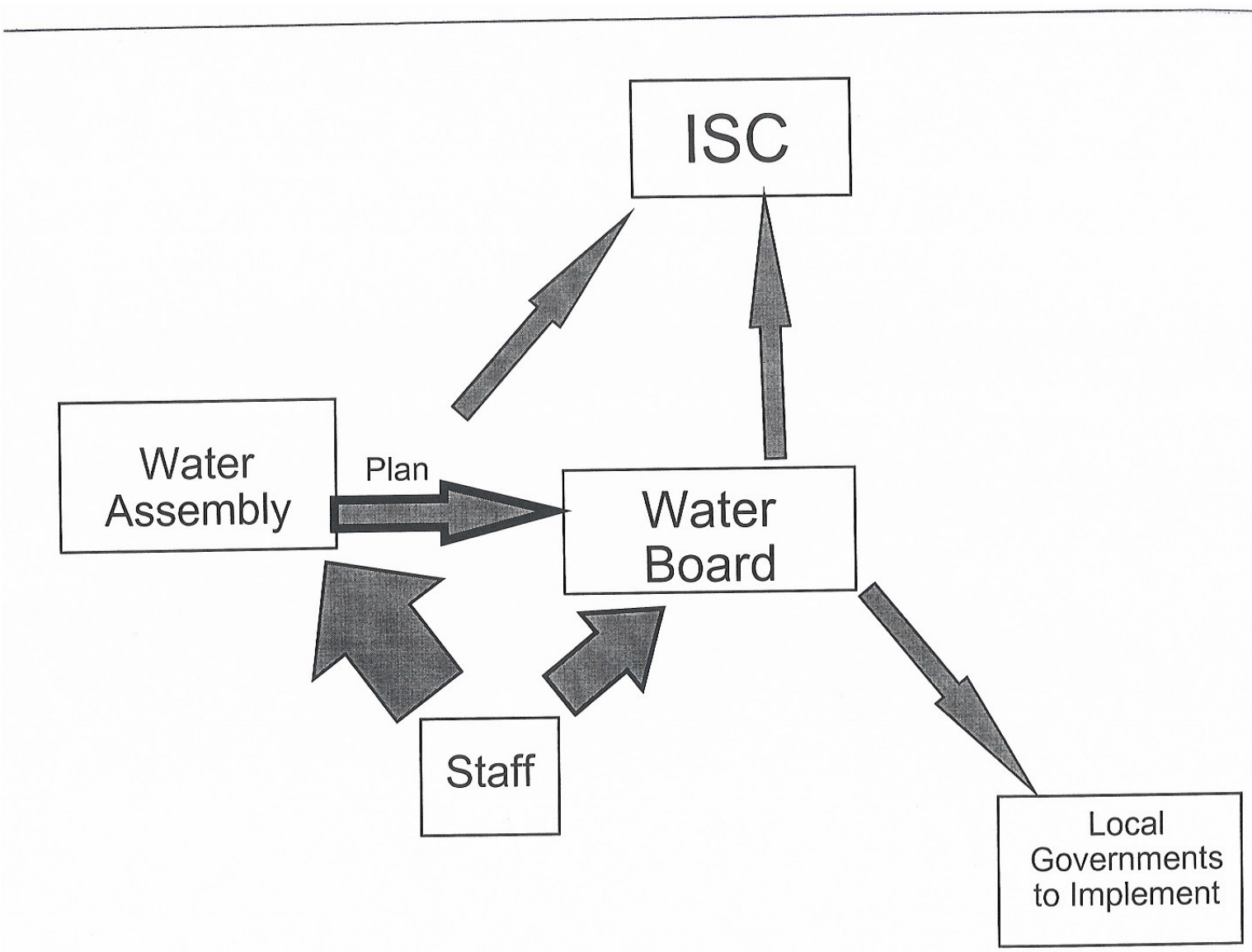
Middle Rio Grande Regional Water Plan - Project Schedule

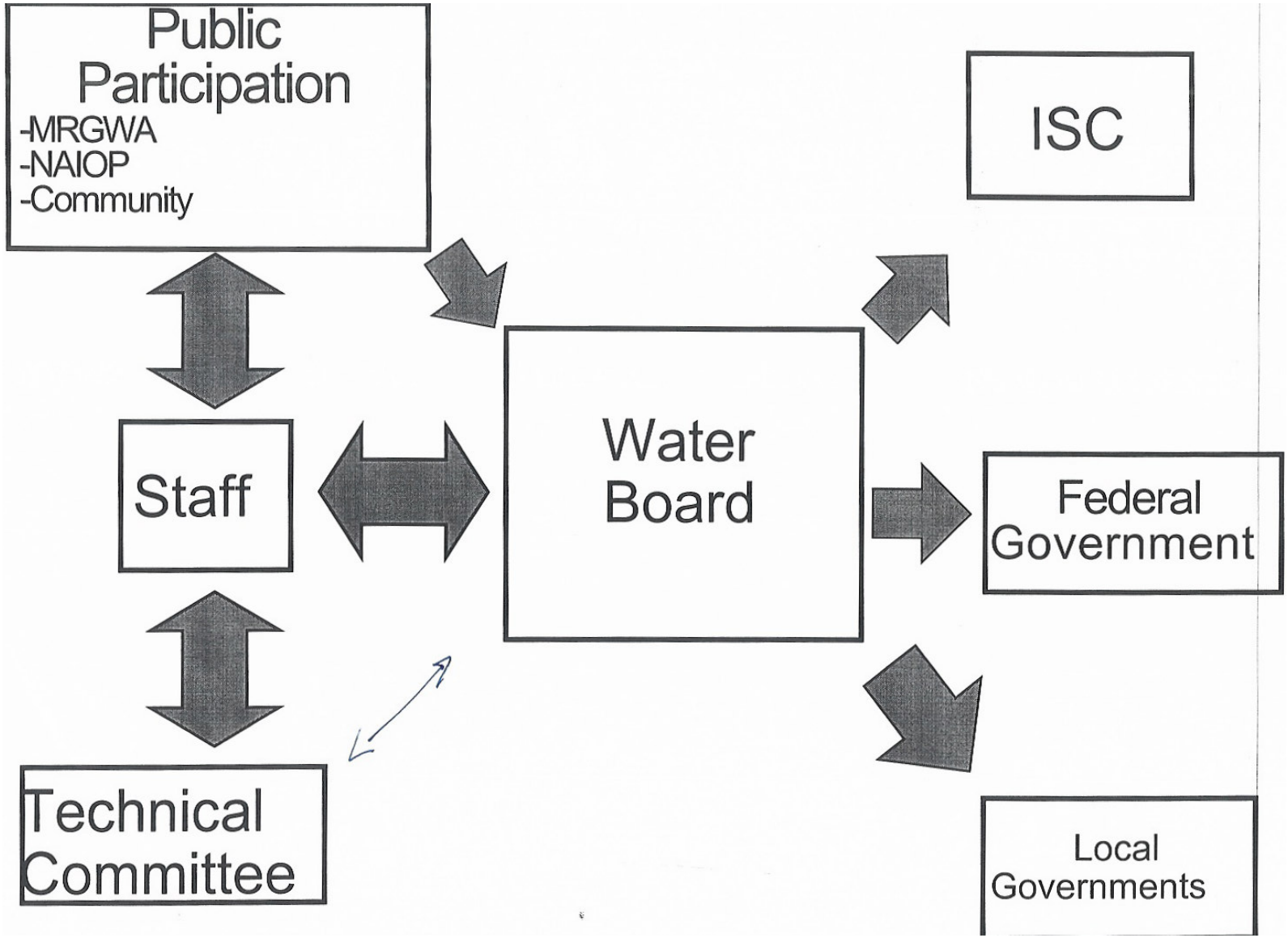


ID	WBS	Task Name
1	0.0	Start Plan
2	1.0	Background Information
3	2.0	Public Involvement Program
4	3.0	Water Resource Assessment
5	**4.0**	**Water Demand Assessment**
6	4.1	Historical & Current Demand
7	4.2	Future Water Demand
8	5.0	Develop Legal Issues
9	**6.0**	**Alternatives Development**
10	6.1	Preliminary Alternatives Analysis
11	6.2	Detailed Alternatives
12	**7.0**	**Plan Preparation**
13	7.1	Draft Plan Development
14	7.2	Final Draft Plan
15	**8.0**	**Plan Approval**
16	8.1	Local Govt. Approval
17	8.2	ISC Approval
18	9.0	Begin Implementation
19	10.0	Begin Plan Update

Project: MRG Water Plan
Date: Mon 04/24/00

Task
Split
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Split
Rolled Up Milestone
Rolled Up Progress
External Tasks
Project Summary


ISC
Water Assembly
Plan
Water Board
Staff
Local Governments to Implement


Public Participation
-MRGWA
-NAIOP
-Community
ISC
Staff
Water Board
Federal Government
Technical Committee
Local Governments

Water Assembly Retreat January 8, 2001 Small group flip charts

Group 1: (Scott Hughes)

2.4 Role of citizens, NGO's and government in formulating water policy
The difference between water rights holder and stakeholder
The actual process of involving the public in the plan formulation
Nature of public involvement
Aspects of public outreach and education

4.0 Look for a better title, something that includes the concept: Looking to past to understand the present – why we look the way we do

Section 5:

- Further breakdown of watersheds into subbasins (subregions)
- Need a nested hierarchy, ie. regional to state levels
- involving stakeholders up through the state level
- Integration of various entities
- Clarification of legal restrictions
    - Disconnects between wet and dry water
    - what changes t laws need to be completed
    - water rights constraints
    - involve Pueblos

Section 6:

Discussion about watershed health, maintenance, restoration, land use patterns
Comparisons of supply and demand of water in determination of *needs*

Separate Section that deals with "Needs"– How to define need as opposed to demand?

Water quality issues

Section 7:

- Stresses on the water use region – what choices can/should be made?
- Expand Plan horizon at least out to 100 years
- Management alternatives –watershed restoration

Section 8: Climate change and Drought

Section 9:

- Public education
- Travels of a Raindrop

- Selection of management strategies – how is it done? Plan adoption?
- An Implementation strategy – how do we meet the goals?

Group 2: (Bob Pendergrast)

Add Section 10: Conclusions and Recommendations

Section 1:
Add: Why the Plan is needed – perspective

- •a El Paso lawsuit
- •b judicial decision
- •c legislative mandate
- •d examples of failure to plan

1.2 Should show the need for a plan that satisfies the needs of the region, not just OSE/ISC requirements – include local implementation, optimization, fairness

1.7 Add conversion factors

Add Appendix, to slim down the plan:

- Public Participation comments

Section 4.2 Special considerations

Section 5: delete "local" from section 5.8

Section 8: add non-traditional water management procedures

Section 11: Implementation

ADD: Middle Rio Grand Water Plan should relate to adjacent plans, and other plans it impacts

ADD: Should provide for periodic progress updates to elected officials

Group 3: (Ed Payne)

Introduction: write at the end

What's Missing:
Section 2: stakeholders
Section 6: aquifer preservation
Section 6 impacts to CO< TX< MX – quantity and quality
Section 7: beneficial use priorities

Section 2: recruitment procedures and involvement – eg Cuba – go there
2.4 negotiation process: use Western Governors Template

Section 3: 3.1 include www
Section 6:
6.3 present treatment and distribution plans – regional and local
water quality: include microbiology, virus, antibiotics, medications under sources of contamination
6.1.4 pump and storage

Section 7:
7.6 rename sustainable growth plan
7.7 reuse/recycle

Section 8: Control evaporation/infiltration plan
8.3 Fair water pricing policy
tiered pricing
to promote conservation

Add: Conclusions and Recommendations Section

Group 4: (Michelle Minnes)

Critical importance: Implementation Plan, especially monitoring, amending, provisions)
Key to explanation about why the plan is on track to succeed

Critical importance: Sound basis in Public participation

Critical importance: Sound basis in Science: Creating a balance between wet water and paper water

Most urgent:

- lobbying for 1.5 million this session
- maintaining momentum
- ensuring appropriate stakeholders are involved, to establish the legitimacy of the process

Include Mission, goals and objectives

Include somewhere: maybe legal?

- summary of all other water planning activities in the region
- coordination of regional water planning and regional and local land use planning
- how the subregional water plans will be absorbed into the regional plan without being overwhelmed by it (see Far west Texas plan)
-

Change 5.1 to water and land use law

Include somewhere the methodology of population projections

Include explicit analysis of why this plan is expected to work rather than fail

Include reference to, and discussion of, Native Americans in several places

Need to emphasize this is a multicultural region

List of stakeholders and their perspectives

Include economic discussion in background section, including description of economics of communities, cities and towns in the region.

Include the economic ramifications of each scenario

Readability:

- include a parallel lay language version for each technical section
- include flow charts and graphics
- summarize each section at the beginning of the section, and cross reference to other sections
- use lay readers to read and comment
- multiple points of entry and a road map

Delete 9.3; create Section 10

We will fail if:

- there is no buy in by elected officials
- there is not enough money
- the public is not sufficiently aware and supportive
- the objective, the relationships and responsibilities and time frame are unclear

Group 5 (drawing a blank – was it Frank?)

9.1.7 Remove “mission”

Urgent – where most of the work remains to be done:

2.4
8.0
9.0
10.0

Section 7: add “Baseline” before “Future”

Section 2.4 consultation and coordination, negotiation, more on Pueblos

Section 1.2 subheadings of NGO’s (I am assuming this is what is meant by M-G&Os)

Section 2.3 public participant contacts, move to appendix

expand 2.4 when process is better defined.

Section 4.2 Historical Overview: include both Shomaker’s big numbers and Mike’s historical literary summary

Section 4: create a new subsection on neighboring regions or subregions – how it all relates

Section 5.7: cross reference legal issues to recommended alternatives

Section 6.1.3 change import/export to inflow/outflow

Section 7.1 will be a summary of new subsection 4 on relationship among regions

Section 7: Consider the use of “extrapolate” instead of “project”

Water Assembly Retreat
January 13, 2001
Intel, Rio Rancho

Facilitator: Lucy Moore

Attending:

Bob Wessely	Jim Gross	Elaine Hebard
Mike Kernodle	Kevin Bean	Brian Gifford
Marty Mitchell	Danny Hernandez	Lora Lucero
Andy Smith	Larry Webb	Henry Pacelli
Ed Payne	Eduardo Pineda	Charles J. Aguilar
Brad Cullen	David Brookshire	Bob Prendergast
Bob Grant	Larry A. Blair	David Stoliker
John Stomp	Frank Titus	Jeff Radford
Lynn Montgomery	Dale Jones	Scott D. Hughes
F. Bertoletti	Frank Robinson	Michele Minnis

Welcome and Introductions: Lee Brown and Frank Robinson welcomed the group. Participants introduced themselves. Lee set the stage for the group by listing constraints of the water planning process at this point. Current plan development has a deadline of June 30, 2003, and must be approved by the Water Resources Board. The plan must include at least those items identified in the Regional Water Planning Handbook, and funding is always limited. There are issues of relationships and roles among those involved in the planning process, but this topic is for another day. This retreat is for the purpose of:

- refining a table of contents for the plan
- identifying tasks and deadlines for the next two and a half years
- discussion the negotiation process by which alternatives will be developed.

Upcoming Meetings and Useful Websites:

- January 17, 8 to noon, Rio Rancho Council Room, all water users welcome
- January 17, NRCS Building, 6200 Jefferson, Water Assembly Action Committee
  - 3:30 - 5:30 discusses mission, goals and objectives, and the negotiation "table"
  - 5:30 - ? discusses riparian issues.
- January 22, 5:30, Public Participation Committee, Planning and Architecture Building, east of the Frontier, room 114
- February 12, Land Use Planners Day at the Roundhouse, see Lora Lucero for details

www.waterassembly.org – Water Assembly's website

www.nmwaterconnections.org – an attempt to get the water picture in NM all in one place; add your entity or organization to directory of water activities in NM, also bulletin board, calendar to enter your meetings, and forum to discuss specific issues.

Themes: During the day, several themes arose as important, and needing more attention in the planning process:

- ***Implementation:*** The plan must make clear how implementation is going to occur, taking care to understand and clarify the complex relationships and gaps among government entities at all levels.

- ***Inclusion:*** The Water Assembly prides itself on its inclusion and openness, and yet there are interests who no longer, or never did, participate. How can the water planning process attract and accommodate these interests? What is the responsibility of the current group to increase participation?

- ***Funding:*** There is an urgency about funding. The planning process needs an office of its own, said a participant, in order to be more effective and be taken more seriously. Many of the tasks are being done by volunteers, but the planning process needs to hire certain kinds expertise – technical writing, for instance – very soon. Increased funding might also enable the group to address the inclusion problem as it creates the forum for negotiation. *The group urged individuals to lobby on behalf of ISC funding for regional water planning.*

- ***Document Production:*** There are ongoing questions about how the document will be drafted and reviewed, and by whom. There is an instinct to make the process as open as possible, yet there will need to be some structured access to the document, through the website, perhaps.

A Good Plan: Lora Lucero gave some pointers for a good plan. A particular challenge for regional water planning, she added, was the *disconnect among the different levels of government*, state, regional and local. She suggested that in order to implement the plans there will be needed a clarity about these roles, and perhaps new legislation. In answer to a question about the *importance of sound data*, she warned against waiting for the perfect, complete set of data. A plan takes a snapshot in time of the known data, and then continues to evolve as new data is developed. Discussion included the *importance of milestones with accountability*, and the need for *all stakeholders* to be part of the process. Different water users must be understood, respected and included.

Straw Person Table of Contents: Bob Wessely presented participants with a draft table of contents for the regional water plan. The group was very appreciative of the work, and felt that it was an excellent skeleton for the plan. In small groups, specific changes were requested, which have been passed on to Bob for the next version.

The group suggested adding to main sections to the table of contents:

- Conclusions and Recommendations
- Implementation

Some felt that prior to the introduction there should be a section that explains the planning process, its rationale and its guiding principles.

They also recommended an appendix, perhaps on CD, with links, that would slim down the plan itself, and would include:

- public involvement comments
- technical reports
- glossary
- units of measure and conversion factors
- definitions

There was concern that information necessary for a readable document be included in the plan itself, and not in the appendix, or as well as in the appendix. Certain definitions, conversion factors, explanations of abbreviations and acronyms should be located in the text for easy reference, perhaps preceding the use of the term.

An editorial committee was formed to help Bob produce the next draft table of contents and deal with task and time line issues. Committee includes:

Bob Wessely, Chair
Bob Prendergast
Marty Mitchell
Ed Payne
Eduardo Pineda
Elaine Hebard

Tasks and Deadlines: Elaine Hebard asked the group to identify tasks and chart them on a time line. This information is being recorded elsewhere.

Negotiation Process: Lee Brown asked the group for its views on the negotiation process that will be necessary to reach, or try to reach, consensus on the alternatives in the plan. He posed three questions:

- How do we design, and create, the "table" for negotiation?
- How do we determine whether the visions that we hold are compatible with the reality of the water supply?
- How do we forge consensus?

Lee suggested two alternatives for creating the negotiation forum:

- revising the Action Committee, both in terms of structure and mission
- creating a separate body

There was debate on which model was preferable. Some felt that creating a separate entity was wasteful, and that the Action Committee is in place and suited to the task. Although the Action Committee lacks, or is losing, important representation – including Pueblos, the

business community, environmentalists, and agriculture – they felt that there were ways to revitalize the body. They referred to an appellate process as a possible remedy. Others worried about the revision of bylaws that would be required to change the Action Committee's structure and mission, and the impact of those changes on the 501(c)(3) status. Some felt that the Water Assembly, and the Action Committee, suffer from a reputation of bias, and are not seen as representative, credible bodies. There would be a higher level of representation at a new, more neutral "table," perhaps a forum created by the Water Resources Board and the Water Assembly.

Lee suggested that the "table" could include three main advocacy groups: agricultural, municipal and industrial(which would include rural domestic), and riparian. Having these categories, rather than Pueblo, environmentalist, business, etc., might put less pressure on some who are unable to publicly represent a group, but would be able to participate as a member of these broader user categories. There was discussion about the selection process for the participants, and whether or not proportionality was an issue.

Lee also posed the dilemma of how to use the water models to help those at the "table" see the reality of the water supply. He sees two approaches:

- negotiate interests first, create an alternative and apply the model
- negotiate the assumptions in the model, and let the model dictate the alternatives

These issues will be further discussed at the Action Committee meeting, January 17, 3:30.

Lobbying: The retreat closed with the urgent request that all those interested in the Middle Rio Grande Regional Water Plan lobby their legislators, in addition to contacting four sponsors of previous bills: Sue Wilson, Rhonda King, Larry Larranaga, and Pauline Guebbels.....sorry, Pauline, about the spelling....

Summary written by Lucy Moore

Middle Rio Grande Regional Water Plan
Colloquy – Convergence of Scenarios
May 14, 2003, Albuquerque

Ed Moreno, Lilly Irvin-Vitela, Facilitators

Bob Wessely called the meeting to order. The purpose of the meeting was to begin the process of convergence of the various scenarios based on the results of the Community Conversations Series 6. All of the originally-scheduled CCs had occurred, however another had been scheduled for May 20 in Belen due to a conflict on the original date – April 29 – on which a large public meeting on an urgent matter had been scheduled.
Two main topics were outlined for the colloquy: scenario convergence and Rio Grande Compact issues.

Rio Grande Compact Issues
At the request of the facilitator, the attendees first discussed Rio Grande Compact considerations. The central issue, which had been raised in previous meetings of the AC and the Public Participation Committee as well as through exchanges of electronic mail, is the extent to which the MRG Regional Water Plan must ensure that the region does not violate the Rio Grande Compact.
Mike McGovern said that the MRGRWP is the only regional plan that upholds the compact and that it is a state responsibility not that of the region.
Kevin Bean said that various attempts to achieve compliance with the compact by the environmental scenario were not successful and that to be successful it will take severe action on the alternatives.
Participants agreed that the collaborative model is a good tool but that, because of certain data gaps and assumptions (consumptive-use savings was cited), it may not be able to determine whether compact compliance can be achieved under any balanced scenario.
Several participants said the Regional Water Planning Workbook requires that
Interstate Stream Commission would not accept the MRGRWP if it does not result in compliance with the compact, and warned that the state would take over the responsibility of writing the regional plan if the region does not achieve a compliant plan. Others pointed out that the Regional Water Planning Handbook requires that compacts be taken into account.
Participants noted that the MRG Water Assembly had agreed to not take water from other areas in order to balance the supply and demand for the region.

Scenario Convergence
The facilitator proposed a process for converging the primary scenarios, which are focused on agriculture, environment, urban uses, a synthesis of the above, and an alternative view proposed by the Scenario Development Committee Water for the Future.

The process was generally to identify the alternatives – directly or indirectly reflected in the collaborative model and otherwise – that were in agreement among the various scenarios or could be worked quickly to agreement. A second phase would be to identify those alternatives on which there could be an agreement in principle. A third phase would identify the alternatives for which there was no agreement, and hold those separately as unreconcilable at this time.
Working in two groups, the AC Colloquy identified those areas in which all of the scenarios were in agreement or close to actual agreement.
Lee Brown of the Synthesis SDC said the committee had agreed to meet one other time to refine its scenario and would not be prepared to undertake the entire convergence process this evening.

The areas in which agreement was evident among the scenarios are reflected in the following chart:

Convergence worksheet
(Model sliders only)

Categories and Actions	**Synth-WTF Group(Ed)**			**Ag Enviro Group (Lilly)**		
Residential	**Agree**	**Close**	**Not**	**Agree**	**Close**	**Not**
Existing homes convert to low flow						
New homes low flow appliances	X			X 100%		
Existing homes change to xeriscape				X 75%		
New homes xeriscape	X			X 100%		
Reduce size of yards in new homes						X
Reduction in consumption by xeriscape	X			X 50%		
Price elasticity of demand						X
Average price of water						X
Existing acreage convert to rooftop harvesting	X	X		X 25%		
Rooftop harvesting for new construction				X 100%		
Existing population convert to graywater				X 20%		
Onsite graywater for new construction					X 60-75%	

Nonresidential						
Convert existing commercial to low flow				X 75%		
Low flow appliances new construction	X			X 90%		
Convert existing commercial to xeriscaping				X 90%		
Xeriscaping new construction	X			90%		
Reduce landscaping for new commercial		X			X	
City of Albuquerque water reuse plan	X			X		
Reduce acreage of parks and golf courses			X	X		
San Juan Chama						
Use San Juan Chama water				X		
San Juan Chama supply				X		
Bosque						
Bernalillo	X			100%		
Sandoval	X			100%		
Valencia	X			100%		
Categories and Actions	**Agree**	**Close**	**Not**	**Agree**	**Close**	**Not**
Bosque treatment time horizon		X		X 20%		
Agriculture						
Control conveyance						
Length of conveyance line and cover		X				X 0-50 miles
Length of conveyance channel to line			X			X 0-300 miles
Control irrigation efficiency						X
Desired acreage to laser level						X
Desired farm acreage to line pipe delivery canals						X
Desired drip irrigation acreage						X
Control crop acreage						
Alfalfa						X
Corn						X
Sorghum						X
Wheat						X
Oats						X

Fruit						X
Nursery						X
Melons						X
Pasture						X
Peppers						X
Misc. vegetables						X
Total crop area						25,000 - 44,000
Total crop consumption						58,000 - 82,000
Desalination						
Desired quantity of desalinated water		X				X
Water source						
Interest rate						
Year desal water available						
Population						
Bernalillo						
Sandoval						
Valencia						
Self-supplied						
Drought						
Year drought begins				Now		
Years drought will last				25 years		
Drought intensity					5-35%	
Transfers						
Treated Socorro sierra bosque acreage						
Future Socorro sierra crop acreage						
Tine horizon for change						
Cost to retire acre of farm land						
Reservoirs						
Control reauthorization						
Abiquiu shared pool reauthorization						
Abiquiu reauthorization						
Compact renegotiations						
Year renegotiations takes effect						
Minimum reservoir volume						
Control new storage						
New northern reservoir						
Artificial recharge						
Year new reservoir is completed						

Small Group Discussion

Ag – Enviro Group (Lilly)

Residential Conservation Measures

Low-flow appliances for new residences support exists because

- this can be regulated
- responsibility for change is on future residents
- politically feasible
- the cost differential is not significant between traditional and low-flow

Low flow appliances existing homes rationale for support

- subsidies
- will be implemented over time

Xeriscaping rational for support

- xeriscape recognizes we live in a desert
- onus for change is primarily on new homes but is an option with subsidies for existing homes
- xeriscape has a range of options that are aesthetically pleasing
- need to look for turf alternatives that require minimal water and can withstand high traffic for family homes

Rooftop Harvesting

- this is a tool to enable water savings
- this practice creates a water wise ethic
- once the industry figures out how to create harvesting systems in new homes it's a "no brainer"
- retrofitting faces challenges but if its affordable and education occurs the group believes at least 25% of existing homes will opt to harvest water

Greywater

- some soils are more appropriate for using greywater
- there may be a public perception problem
- education is key
- if implemented overtime and anticipated in new homes the costs can be planned for
- Building codes that mandate for new homes will require regulatory oversight
- Different land use choices may make greywater re-use more effective

Urban Water Pricing

- the range among scenarios is too different to agree right now
- as decision is made the WA should consider block pricing and protections for low/fixed income users
- Study indicates that the range of moderate support to complete support outweighs the No vote on water price increases.
- By increasing the cost of water, utilities can use increased revenue to upgrade the infrastructure to increase water efficiency
- group questioned the accuracy of the elasticity measure in the model

Non-residential Conservation measures

- (see analysis for residential)
- Reduced landscaping may have some unintended consequences like asphalt
- Consensus in group is that commercial properties need to have some landscaping that is low water use.
- there should be a reduction in irrigated landscape but not open space

City of Albuquerque

- Public parks should have a higher value than golf courses.
- Maintaining parks will be increasingly important as residential yards are xeriscaped
- There needs to be a reduction in irrigated acreage overall but primary reductions need to come from golf courses by at least 20%.

San Juan Chama

- San Juan Chama has technical implementation problems
- this source of water creates a false sense of security
- Different studies project different amounts of water actually making it to Albuquerque (concern that the model might overstate the actual amount of water coming into the region)

Bosque

- different riparian areas will require varying degrees of intervention
- not all salt cedars and Russian olives will need to be removed to save water and reduce evaporation
- support for bosque management is as much a statement of taking care of land uses we collectively value as a question of how to save water
- one way to manage the areas that are cleared in the bosque is to use low water agricultural crops- (Look at Bosque del Apache)

Agriculture

- over watering happens
- education is key to using water efficiently
- traditional local wisdom has been lost in some places and needs to be regained in order to manage water well
- changes in crop acreage require subsidies and education
- SDCs may be overestimating the impact of laser-leveling because it is happening to a greater extent

Desalination

- The changes demonstrated in the current model are not significant to encourage this alternative. (economy of scale)
- pipelines and costs of energy to operate desalination plants are high and may be prohibitive in the future given the costs of fossil fuels
- Disposal of salt is unresolved
- drilling for salt water can contaminate fresh water and it is currently illegal to drill for brackish water in NM
- desalination may be a short-term alternative
- desalinated water would support survival not allow for present growth rates
- belief expressed that NM will be desalinating water locally within the next 10 years

Population

- Balancing the competing need to use less water with the need for economic vitality and population growth is difficult

Drought

- a 25 year or more drought is not unrealistic
- drought is cumulative
- may be difficult/impossible to regain a greenbelt once it is lost
- If land is taken out of agricultural production during drought, it becomes vulnerable to urban development pressure.
- If drought increases in its severity (long-term history suggests it will) then the cultural, economic, consequences will be severe.
- Drought requires our community to change our lifestyles.
- A combination of good water management practices and a community-driven collective approach are key to surviving drought.
- Drought may result in temptation to pump the aquifer more but subsidence is a reality and the geological/hydrological and economic costs are unknown.
- Education "retooling" is key to water balancing in a long drought

Synthesis-WTF Group (Ed)

- Agriculture diversions changes don't affect the balance much.
- Lining can save water, as the case of San Diego, which paid for the lining of Imperial Valley canals and could claim half of the water saved.
- Crop selection and acreage don't work without some marketing development.

Non-Modeled Alternatives

The attendees participated in a straw vote on the non-modeled alternatives, which generally reflected the preferences that were derived from the public participation at Regional Forum 5. The top number of "dots" were placed by the alternatives:

Watershed Plans (7)
Land Use (6)
Metering Wells (5)
Water Quality (5)
All others received two, one or no dots.

The meeting broke up about 8:30 p.m.

Submitted by Ed Moreno. For changes, corrections or other information, contact 505-466-2006

Middle Rio Grande Regional Water Plan
Colloquy – Convergence of Scenarios (Continued)
May 21, 2003, Albuquerque

Ed Moreno, Lilly Irvin-Vitela, Facilitators

Bob Wessely called the meeting to order. Various items of non-convergence business were discussed. The purpose of the colloquy section of the meeting was to continue the convergence of the scenarios in preparation for presentation to the public at the June 7 Regional Forum.

Rio Grande Compact Issues

Further discussion was taken on the subject of the Rio Grande Compact, continuing from the May 14 colloquy. The prevailing sentiment was that the MRGRWP must address compact compliance or the Interstate Stream Commission would not accept the plan. Several participants indicated they had been told as much by officials of the ISC recently. Comments were as follows:

- We need to decide within the region or others will decide for us.
- Our obligation is to deliver water to the next planning region, not the entire compact obligation. It's a state obligation.
- We don't recommend renegotiating the compact but have to meet its strict obligations.
- We don't know the range of flows from wet, dry or average years. For wet years it's off-base, we should use "best hydrology available."
- A variety of compact obligations are in the model.
- We need to meet our obligations to southern New Mexico AND Texas.
- The state engineer says we must abide by the compact.
- The plan is undermined if we don't deal with the conflicts about the compact.
- How are we going to judge compliance with the compact? A spreadsheet? The model?

Scenario Convergence

It was recommended that the scenario being developed from the consensus of the SDC scenarios not be called a "preferred" scenario since the turnout has been so low at the Community Conversations and the Action Committee on the convergence discussions. The scenarios have not been given the depth of discussion required for decision-making since they've been based on the "model" discussions only.

An ***agreement in principle*** was reached during the discussion on agriculture as related to the irrigation efficiency and preservation of acreage components of the scenario. All parties agreed that agriculture had value beyond economic value, that there is value to urban and rural residents alike to having a greenbelt as represented by the farms and ranches of the Rio Grande Valley.

Another aspect of the ***agreement in principle*** was that some land loss by agriculture is inevitable over time as individuals sell their rights. And the green will also be lost.

Other alternatives related to the scenario convergence are as follows:

Bosque Management
The Analysis Team met and revised the acreage of bosque in the MRG Region. The bosque area associated with the river itself was adjusted to 17,000 acres. The remaining acreage, 6,000 acres is considered riparian acreage outside the river corridor. The model uses 21,790 acres for bosque measurement.

Agriculture

- The crop selection settings in the model won't change what happens on the ground. It takes markets, infrastructure, and lifestyle changes that can't be dictated.
- Drip irrigation is costly.
- Monoculture is not viable. Farmers already rotate their crops.
- The agriculture SDC did not have the expertise to tell farmers what to do, so crop selection was seen as a proxy to indicate that there could be some efficiency savings. The agriculture SDC considered it a value to keep existing acreage in irrigation. Everyone needs to conserve.
- Inadequacies in the model related to agriculture include:
    - Doesn't recognize that changes occur over a time span.
    - Lands may be lost to agriculture.
    - The model doesn't show the value of saving water through agriculture management.
    - Want to hold acreage constant
    - Agriculture efficiency – it didn't get us the water numbers. It's a wet-water issue.
    - Compare non-agriculture industry to agriculture. Agriculture is a big user.
    - Urban users have return flow.
    - The availability of wet water is an issue.
- When water rights are sold from a plot of land, the land often remains in use when it is subdivided and individual homes are allowed to drill wells, known as "double-dipping."
- Agriculture has value beyond economic values.
- Agriculture diversion permits for acequias have two different kinds of rights: those that can be diverted and those that can be consumed.
- A concern is that urban users are all metered but agriculture is not metered and so is seen as the culprit for water use.
- Water law in California allowed San Diego to claim half of the water saved by eliminating seepage from canals in the Imperial Valley by lining the canals.
- Junior water rights holders would be more likely to get their fair share of water if efficiencies occur.

- Increased efficiency means less recharge into the aquifer.
- If we want a green valley, we can create laws, ordinance etc. That will direct how land use changes.
- How can agriculture be maintained?
    - Economic and market initiatives: farmers' markets, local industry manufacturing tied to agriculture.
    - Urbanization is irreversible. Rural communities within the region are challenging this attitude.
- The Department of the Interior is predicting a "water war" in the Albuquerque area.
- Agriculture is worth preserving, but economic development and efficiency are key to this.
- It's a "dream" and "nostalgia" to think that population will not increase. Immigration will continue.
- What are we empowered to do? Avoidance of waste, instead of "conservation," response to emergency, and short-term and long-term view.
- In the plan, specify in some detail about how to maintain acreage and increase efficiency.
- Where is waste going to be eliminated? Inspect, license and increase the number of ditch-riders, have regulatory measure and hold MRGCD accountable.

Continuation of Convergence

The AC was unable to complete all of the tasks required for convergence, therefore a five- or six-member team is being appointed by the AC leadership to represent constituency groups at a final convergence meeting to be scheduled.

The meeting broke up about 8:30 p.m.

Submitted by Ed Moreno. For changes, corrections or other information, contact 505-466-2006

Mid Region Council of Governments
and
Middle Rio Grande Water Assembly

Retreat
June 21, 2003, Intel

Facilitators: Lilly Irvin-Vitela and Lucy Moore

Resource person: Howard Passell

Participants:

Bob Prendergast	Phil Pohl
Lee Brown	Lora Lucero
Susan Kelly	Dan McKay
Andy Smith	David Stoliker
Danny Hernandez	Elaine Hebard
Terese Ulivarri	Kevin Bean
John Brown	Lynn Montgomery
Lisa Robert	Robert Cordova
Mike Trujillo	Ginger Eldridge
Don Lopez	Richard Barrish
Mary Murnane	Reid Bandeen
Bob Wesseley	Leslie Kryder
Elizabeth Chesnut	Henry Pacelli

PURPOSE: To discuss difficult issues and identify points of agreement and disagreement in order to build a scenario which has the maximum support possible among Water Assembly and MRCOG membership.

DECISION MAKING AND GROUND RULES: The group agreed to use a limited amount of time to discuss an issue and try to reach consensus. Consensus would be defined as everyone being able to live with the proposal. Participants will take the consensus points back to their constituencies or boards for final approval. Failing consensus, the summary of the retreat would explain the points raised for the further edification of the authors of the draft plan.

The group agreed to listen to each other carefully and with respect, to look for areas of common ground, to share the time so all have a chance to speak, and to maintain a sense of humor, if possible. They also agreed to permit caucuses by anyone who needed to call one, and that all cell phones should be turned off.

PRIORITIZING ISSUES FOR DISCUSSION: Participants ranked the 22 issues listed on the

agenda, plus two additional issues, Water Quality # 23, and Watershed Management # 24. Results of the ranking are listed below:

- Land use and water planning connections (10 votes)
- Growth management (10)
- Rio Grande Compact requirements (10)
- Domestic well control and metering (8)
- Number of acres in agricultural production – now and future (5)
- Importation of water rights to the region (5)
- Watershed management (5)
- Water banking (4)
- Future rainfall – based on 1990's?1950's? 1600's? (4)
- San Juan/Chama numbers? – less than 75,844? (4)
- Ag use of water for ranching/livestock in region (4)
- Minimum volume to be stored at Elephant Butte – 400,000 af? (4)
- Instream flow rights (3)
- Authorization for additional storage at Abiquiu, impacts of upstream storage (2)
- Current projection for population growth – a given? (2)
- Desalination (2)
- How does ownership of water rights figure into planning process? (1)
- How can/should water consumption be reduced on farms? (1)
- How can/should water consumption be reduced in conveyance systems (1)
- Conservation and yard size (1)
- Water quality (1)

DISCUSSION OF ISSUES:

Land Use and Water Planning: The question before the group was: Should land use policy be made on the basis of water availability? Although there may be a natural link and a necessary connection between land use and water planning, some questioned whether or not the link would produce a quantifiable water savings. The benefits might include: an economic vitality, preserving a sense of community, and a sense of living within our means.

State subdivision laws require that in rural communities developers have water rights in hand in order to receive a permit. Some questioned whether or not those requirements were enforced adequately, and what the impact on wet water supplies would be. Many subdivisions were grandfathered under the law, and others some say were "rubber stamped."

The group discussed timing issues. Should water use decisions be made simultaneously with land use decisions? Should water be a veto in land use decisions? Many felt that land use connections should be made early in the water planning process, and that comprehensive planning at the local level should address water.

Land use planning should include attention to design, so that building in a flood plain, for instance, is prohibited.

The group also acknowledged that much development occurs on agricultural land, and that the loss of that land can impact water resources, particularly the shallow aquifers.

There was concern that municipalities would not be able to afford to comply with mandates requiring connections between land use and water availability. Some also wondered about unintended consequences of such policies.

The group reached consensus on the following statement:

Land use plans created within the region need to consider the availability of renewable water supplies.

Growth Management: Much of this discussion focused on whether or not water availability should be a constraint on growth, and if it is, how that constraint can be implemented. There was also concern that growth is a population issue, and that without addressing population, growth management is meaningless. Mandating who lives where, however, can be controversial or even illegal. Another question asked whether the goal was to have a single regional growth management plan to be considered by each local government, or whether to recommend that each local government develop its own growth management plan. Without a regional approach, some feared that one local government would shove development to the least restrictive jurisdiction. A coordinated regional approach can be undermined with out local buy-in, said one. Another anticipated that each jurisdiction with the region would receive a certain budgeted amount of water. A participant pointed out that if the region does not manage its own growth, "someone else will."

There was discussion about the extent of water savings from various kinds of growth management. Infill, for instance, reduces water consumption. A participant suggested that the plan should be more selective about kinds of development, and limit industrial projects.

Participants warned against gentrification, and development constraints that make affordable housing unaffordable and destroy communities.

Local economies are currently dependent on a growth model, and they will need help learning about and shifting to alternative models of economic development.

The group worked on the language in the "Summary of the Feasibility of the Candidate Alternative Actions," and came close to a consensus on the following. The dissenting voice preferred "water plan" to "growth management plan."

Develop a sustainable and coordinated regional growth management plan which local governments in the middle Rio Grande region should adopt and implement in order to:
1) reduce water consumption;
2) minimize impact on water resources;
3) encourage conservation -oriented economic development;
4) ensure adequate water supplies for any proposed development, and

5) consider the carrying capacity and location of development.

Meeting the Rio Grande Compact Requirements: This discussion included a principle for consideration by the planners: that any shortfalls be shared equitably among water users. Neither urban nor rural should take a disproportionate share of the hit. Again, the inclusion of urban irrigation within the MRGCD is an issue. Participants wanted also to insure that meeting the compact would not mean extreme measures like lining the Rio Grande.

The group agreed by consensus that:

The region must meet the requirements of the Rio Grande Compact in accordance with the missions, goals and objectives of the plan.

There was much discussion about how to meet those requirements, and Howard Passell demonstrated various scenarios on the model.

Domestic Well Control and Metering: The group exchanged pros and cons of domestic well controls and metering. The argument against controls and metering include the opinion that the concept is politically unpopular, the number of wells and the amount pumped is not significant, the amount of water saved questionable, and the cost of metering and enforcement may be prohibitive. Besides, the State Engineer by law cannot deny a domestic well permit., and restrictions may constitute a taking of private property. It was suggested that sampling in order to learn more about the impacts of wells made more sense than across the board metering.

Proponents of metering and controls feel strongly that the number of wells in the region is well over 100,000, permitted and unpermitted, and that with the potential for each well to pump 3 af a year the impact on the water resources could be disastrous. They argue that it is important to have as much data as possible about *all* uses, including wells and their impact on groundwater supplies. The Institute for Public Law survey showed general support (6 on a scale from 1 to 7) for metering wells, which is an indication that there is public, if not political, support for metering. Many wells, they suggested, are being used for irrigating. Some feared a priority call on the river (like Pecos) without this kind of information and controls, and suggested that the cost of metering could be prepared for. Because it is a difficult sell, a regional level policy might be more successful than a local one. The mechanism of declaring Critical Management Areas may be another vehicle for the State Engineer to use in controlling domestic wells.

Some suggested metering all new wells, and grandfathering existing wells, or focusing on the problem areas where groundwater supplies are endangered.

The group discussed the following language:

- All future wells should be metered. SE should investigate and determine the number of domestic wells in the region.
- All uses of water in the MRG should be measured, and new uses should not impair

existing water rights and permits.

- The SE should be allowed to place conditions upon domestic well permits

The group agreed by consensus on the following statement:

All uses of water in the MRG should be measured, and new uses should not impair existing water users.

Number of Acres in Agricultural Production, now and in the future: Participants began by pointing to definition problems. Calculations on agricultural land in production are skewed because of the number of MRGCD acres which are actually outdoor urban areas, or yards, not acres under commercial cultivation. The kind of information needed is usually gained through the State Engineer's hydrographic survey process, but there have been no resources for that effort to date. The group agreed to leave the amount of current acreage question to the Analysis Team, and to focus on the anticipated percentage change in that number in the future.

There was a discussion of the value and nature of agricultural land. A participant pointed out that the definition should include grazing, since in some parts of the region agricultural land is used for livestock. Another noted that once agricultural land is lost, it cannot be regained. Preserving land in agriculture is insurance for the future, a buffer for unpredictable times ahead. Irrigated land provides economic benefit to small communities, food for surrounding areas, wildlife habitat, recharge for the aquifer, benefits to the air shed and view shed, preservation of cultural and historic values, and "room to breathe."

Some felt that the number of acres under cultivation would remain constant, and that without Pueblo figures and projections it was difficult to be accurate. As the bosque is restored some land may return to cultivation. Others felt that a decrease in agricultural land was inevitable, based on current development rates and patterns. Land should not be considered "out of production" just because it is fallow as a result of crop rotation.

Again, there was concern about unforeseen consequences of policies on constituents in the region. The group also discussed the impact of the marketplace on the use of water. Some saw farmers as vulnerable to market pressures; others saw the price of water as a useful mechanism. And again, there was the question of whether or not water is really gained for the system if land goes from irrigation to development.

The group agreed on the concept that "double dipping" should be prohibited, but found it difficult to define the concept in a way that permitted natural vegetation to flourish, or remaining water rights to be used. The intention was to insure that the equivalent amount of wet water would follow the water rights that were sold off a piece of land, and that the owner would not continue to use that amount of water on the "source site" that had been sold or leased for use on another site.

The group discussed the following proposed language:

- Strengthen and enforce the rules that currently exist in the MRGCD.
- Do not permit transfer from SW to GW.
- Ensure that the source sites of transfers truly stop consuming water.
- Stop gross examples of double dipping.
- Promote water banking with competent protections for third parties. (can be considered under A-67)
- Identify recharge areas in ag lands and establish protective policies for those areas. (can be considered under A-30)
- Develop protective mechanisms for ag properties based on productive capabilities.
- Develop methods to relieve market pressure on agriculture to sell water rights.
- Develop fiscal incentives that can relieve market pressure on agriculture to sell water rights to another consumptive use.

The group agreed by consensus on the following statements:

Principle: Values of agricultural land include health of ecosystem; recharge, future potential in terms of compact deliveries, food security and economics; airshed and viewshed, wildlife, and cultural/historical values.

We anticipate that with no policy changes there is likely to be a 25-30% reduction in irrigated acreage by 2050.

Permit emergency leasing to meet Compact obligations and environmental needs.

Develop protective mechanisms for ag properties to support the principles named above.

NEXT STEPS:

- The Analysis Team will reconcile conflicting numbers, including number of agricultural acreage, and others, **by the end of July.**
- The Public Welfare group will meet during June and July to further the development of the public welfare statement for the draft plan. Next meeting is at Lora Lucero's house, **Wednesday, June 25, 5:30 - 7:30.** Call for directions:

- Water Resources Board meeting to consider scenario, **July 9**

- Joint Meeting,* WRB and WA to continue today's work**, July 15, 4:00 - 8:00 pm –** location to be announced

- Retreat, WRB and WA to continue today's work and consider goals, objectives, and public welfare statement, **Saturday, August 2, 9:00 am - 4:00 pm.**

***** The group agreed it may be necessary to appoint a smaller group to work on issues if progress is not adequate at these joint meetings.

Summary prepared by Lucy Moore. Please contact her with comments or corrections: 505-820-2166, or email: lucymoore@nets.com

Middle Rio Grande Water Assembly and Water resources Board
Joint Meeting July 15, 2003

Facilitators: Ric Richardson and Lilly Irvin-Vitela

Participants: Bill Sapien, Don Lopez, Terese Ulivarri, Mike Trujillo, Dave Hill, Lee Brown, Bob Grant, Robert Cordova, Martin Zehr, Ted Asbury, Betty Behrend, Tom Menicued, Mike McCan, David Stoliker, Susan Kelly, John Stomp, Bob Prendergast.

Purpose: To continue discussing unresolved issues and identify points of agreement and disagreement in order to build a scenario which has the maximum support possible among the Water Assembly and Water Resource Board membership.

Decision-making and Ground Rules: The group agreed use a limited amount of time to discuss each of the issues and try to draft a consensus statement about each. The ground rules for the discussion that the group had defined at the retreat in June 21, 2003, included listening and speaking respectfully and carefully; building on common ground; sharing the amount of time dedicated to discussing each issue; using the available time as effectively as possible; maintaining a sense of humor; and caucusing when necessary. Participants agreed to take the consensus agreements back to their constituencies for final approval. If agreement on an issue is not possible, the meeting summary will serve to clarify the debate about the issues for those who are drafting the plan.

Issues for Discussion:

1. Importation of water rights to the region.
2. Watershed Management
3. Water Banking
4. Future rainfall projections
5. San Juan Chama numbers
6. Ag use of water for ranching and livestock in the region
7. Store minimum volume at Elephant Butte- 400,000 af?
8. In stream Flow
9. Authorization for additional storage at Abiquiu, impacts of upstream storage
10. Current projection for population growth- a given?
11. Desalination
12. How does ownership of water rights figure into the planning process?
13. How can/should diversions be reduced in conveyance systems?
14. How can/should water consumption be reduced in conveyance systems?
15. Conservation and yard size
16. Water Quality

Discussion of Issues:

1. ***Importation of Water Rights to the Region:*** The question before the group was: Should the plan support importing water from Socorro/Sierra or any other regions, especially if there are water savings in these regions from restoration of the Bosque?

The group discussed the advantages and consequences of importing water, especially in light of the overall goal of the plan to balance water use with renewable supply. However, the group concluded that the Middle Rio Grande region should maintain the option of pursuing available water with the consent of the exporting region. During the discussion, several of the members of the group raised questions about who would make and oversee such decisions and how would the imported water be made paid for?

The group reached consensus on the following statement:
The Region should seek to import and used any water that is available including water made available through desalination where feasible.

2. ***Watershed Management:*** The question raised for the group's consideration was: To what degree should watershed management be pursued as a regulatory and conservation tool within the region? The group discussed the purpose of managing water on a watershed basis and agreed that it is a sound concept and used the language from the alternative on watershed management as the basis for their consensus statement.

The group reached consensus on the following statement:
Implement local and regional watershed management plans through all land and water agencies in the area to increase water yield and prevent erosion.

3. ***Water Banking:*** The question before the group was: In what way can or should water banking be used in order to protect water rights and insure beneficial use?

The group defined water banking as a mechanism to temporarily lease water rights to maximize use without the permanent transfer of rights from one owner to another. During the discussion the group identified three primary objections to water banking. The objections include: 1.) By facilitating its commodification, water may be moved out of agriculture use more quickly. 2.) There is no institutional clarity about the regulation and oversight of water banking: Would the regulation be based on a state or regional agency? 3.) To the extent that water is treated as a commodity within the, there is a precedent for treating water as a commodity between states.

The group also discussed the implications of water banking on agricultural practices. Recent legislation has recognized that acequia associations have the right to approve or disapprove the sale of water rights.

The group reached consensus on the following statement:
Water banking should be implemented within the region in order to maximize beneficial use and to permit the water right to stay with the owner while the water is leased for a period of time.

4. ***Future rainfall projections:*** The question for the group to consider was framed as: What historical data should be used to make projections about future rainfall and the consequent intensity of drought? How do different data sets frame the conditions that we need to consider when problem-solving?

The group discussed the validity of the major data sets that are used for historic rainfall and to project future trends On the one hand the tree ring data from El Malpais may not be reflective of the hydrological conditions in the Middle Rio Grande region. On the other hand data from the 1950's forward may be based in one of the wettest periods in the history of the region. The group agreed that other data sets are incomplete.

The plan should use a range of numbers from the data available and a series of hydrological conditions to get the best approach. The plan would include a drought management plan, as required, to recommend what to do if there is not enough water to meet the compact.

The group made the following consensus recommendations:
The water plan baseline hydrological data will be defined by the Analysis Team and approved by the Action Committee and the Water Resources Board.

5. ***San Juan Chama numbers:*** The question before the group was: How much water is available from the San Juan Chama project?

The discussion centered on how much water will actually be available from San Juan Chama (75,000 AF vs. 60,000 AF). If there is a drought there may be less water and the Bureau of Reclamation may decrease the yield allocated to the Middle Rio Grande Region. It may be more realistic to reduce the amount expected. Members of the group agreed that it is politically infeasible to propose using less water than has been allocated and contracted.

The group also agreed that drought conditions, the Endangered Species Act, and other legal issues should be addressed as they arise, but using any number less than what the amount for which there are legal contracts leaves the region vulnerable to others wanting to utilize the water that the region has not planned for and used.

The group reached consensus on the following statement:
The San Juan Chama water allotment that will be used in the projected scenario is the amount currently contracted to users within the Middle Rio Grande.

6. ***Agricultural use of water for ranching and livestock in the region:*** The question before the group was: In what way will the draft plan include ranching/livestock issues in the agricultural alternatives to address water conserving agricultural practices within the sub region?

The group reached consensus on the following statement:
T*his issue will be taken off the table because it is already being addressed in the sub region's plan.*

7. ***Store minimum volume at Elephant Butte- 400,000 AF?*** The question that this alternative raised was: Does it make sense to store the minimum amount of water (as little as possible) at Elephant Butte because of high rate of evaporation at Elephant Butte and the consequent water loss? The discussion focused on the fact that storing water upstream in other reservoirs at higher elevations or in the aquifer does not result in the evaporation losses as storing water at Elephant Butte; therefore there would be significant water savings.

The group agreed that it made sense to store as little as 400,000 AF in Elephant Butte so long as Interstate Compact requirements to deliver water to Texas were met and there was not undue environmental impacts of storing water in upstream reservoirs. (See the discussion below under Authorization for additional storage at Abiquiu. Same rationale informed decision-making)

The group reached consensus on the following statement:
Water may be stored at Elephant Butte in any amount so long as New Mexico *Maintains compact requirements.*

8. ***In stream flow:*** The question that was raised for the group by this alternative was: Does endorsing in stream flow as a beneficial use in the plan contribute to creating a water right for the river?

The debate centered on whether this alternative is an environmental priority or would be contrary to the current policies of the State Engineer. Further some members of the group asserted that putting this alternative in the plan would indicate that the region supports the Federal Government in making decisions about water rights for the State. With current court decisions, Federal considerations about the Silvery Minnow and the Endangered Species Act may result in creating an in stream flow requirement.

Other members of the group asserted that the State of New Mexico and State Engineer Office should be responsible to determine Instream flow and beneficial use. The group also raised concerns about competing interests between the environmental needs and interests and agricultural need for Rio Grande water.

There was no consensus on this issue.

9. ***Authorization for additional storage at Abiquiu reservoir, and the impacts of upstream storage:*** The question before the group was: Should the plan include a assumption that the region requesting that additional storage (up to 400,000 AF) be authorized at Abiquiu Reservoir when it comes up for federal reauthorization? The

current scenario recommends agreeing to the existing amount of storage in Abiquiu that has been authorized. Authorization of additional storage has raised questions about the environmental, social and economic impacts of this action. Requesting additional storage would require renegotiation of the compact to permit storing more water upstream.

The key questions covered in the discussion include: 1) What are the impacts of storing more water at Abiquiu on the Wild and Scenic river designation in the stretch of the river above the Reservoir? 2) What are the potential impacts on the ability to store water at Abiquiu to institute flood control measures? 3) Is the potential for saving water by storing water upstream rather than at Elephant Butte through the reduction in losses from evaporation significant enough to justify this action?

The group discussed that it is not clear that storing additional water at Abiquiu would affect the area of the River designated as Wild and Scenic. Many members of the group also asserted that there are Federal regulations about affecting rivers designated as Wild and Scenic, and the plan would be subject to those restrictions. Further, flood control guidelines regulate the maximum amount of water that may be stored at Abiquiu. Other members of the group pointed out that storing water at a higher elevation in New Mexico would result in significant water savings because there would be less evaporation at Elephant Butte.

> **The group reached consensus on the following statement (in contrast to the present assumption in the draft converged scenario):**
> *As a plan, the Region should seek to store as much water upstream as possible to the extent that it may be approved by regulatory authorities. This would require Congressional authorization.*

10. ***Current projection for population growth – is it a given?:*** The question that this alternative raised was: Are the about the population projections from Bureau of Business and Economic Research (BBER) the best to use in the plan? The issue was raised because BBER did not project to 2050 (only to 2020), and analysts other than BBER had projected population for the time period from 2020 to 2050.

Members of the group pointed out that the data from BBER was the best information available, and that the Water Action Committee had revised the population projections in the plan after a presentation from Deli Alcantara, the State Demographer from BBER. A recommendation was made to consult with Deli Alcantara to see if she has projected the population to 2050.

> **The group reached consensus on the following statement:**
> *The water plan will be based on BBER population projections.*

11. ***Desalination:*** The question that was before the group from this alternative was: Why does the scenario only look to Tularosa as a potential source to import desalinated water?

The group discussed that while it is important to look at all sources of water in addition to desalinated water from Tularosa, importing desalinated water from the Estancia basin may prove difficult given the position about not exporting water from that region. There are also concerns about contaminating the existing water supply in the

desalination process. This concern has also been raised in regard to tapping and desalinating Albuquerque's deeper, but brackish aquifer. The reason why importing a modest amount of Tularosa's desalinated water was that because the hydrological data suggests that the aquifer could be mined with limited risk to fresh water. However, the group also recognized that costs for the technology to desalinate the water and constructing a pipeline to transport the water might prove to make the alternative prohibitively expensive.

> **The group reached consensus on the following statement, recommending a similar approach to this issue as "Importation of Water to the Region:"**
> *The Region should seek any water that is available including desalination where feasible.*

12. ***How does ownership of water rights figure into the planning process?*** The question before the group was raised because of the high regard and public interest in protecting individual water rights, and that the plan does not address the issue of ownership of water rights.

The group discussed that the plan does not address water rights specifically because past attempts at dealing with water rights in the context of planning has derailed the planning process. Member of the group from the water assembly pointed out that while the ownership of water is crucial, water rights are looked at as a separate and important issue. Further, many water rights are in dispute and many of the basins have not yet been adjudicated. This leaves several unknowns that a plan cannot meaningfully address at this time. However, the group pointed out that it is recognized that implementation of the plan will necessarily involved issues about the adjudication of water rights. The water assembly has carefully crafted a statement to the effect that their intent is NOT to affect water rights.

> **The following language was agreed to by consensus:**
> *The ownership of water rights is an issue properly dealt with at the State level and not within a regional water plan. However, the Region endorses the early adjudication of water rights in the Middle Rio Grande region.*

13. ***How can/should water consumption be reduced on farms?***
This discussion was similar in focus and content to the discussion about reducing diversions and conserving water in conveyance systems. (See the following discussion, number 14.)

> **The group reached consensus on the following language:**
> *Promote on-farm water conservation*

14. ***How can should water consumption be reduced in conveyance systems***?: In addition to this specific question, this alternative raised the following questions for the

group: What is the basis for the assumption that water is "consumed" in conveyance systems? Which ditches should be lined and which ditches should not be lined?

There was discussion that most water from conveyance systems is not really consumed or lost. Rather, the water seeps back into the shallow aquifer, and the seepage is beneficial as it helps to recharge the aquifer in many places and replenishes local wells. Further, unlined ditches also help to maintain riparian health. Although lining ditches makes them easier to clean there are cultural implications of ditch cleaning that should be respected.

The group agreed that there are some conveyance systems that are more appropriate than others to line. Increasing irrigation efficiency makes sense. There are other ways such as a well-implemented and monitored ditch rotation system that would do more to improve efficiency.

The group reached consensus on the following language:
Change the question to- How can/should diversions be reduced in conveyance systems? The focus should be on high volume conveyance systems that don't reach the river or recharge the aquifer.

1. *Respect the recharge areas for local wells and places where the conveyance replenishes the shallow aquifer.*
2. *Respect cultural values.*
3. *Consider the environmental impact on the riparian system.*

15. ***Conservation and yard size:*** The question before the group was what is the relationship between yard size and water conservation? The group discussed the value of reducing irrigated areas in a yard as well as in parks and golf courses. The group agreed to reframe the issue as "Landscaping Conservation" and to break the issue in to two parts, one having to do with reducing the amount of turfed lawns in residential areas, and the other addressing irrigated golf courses, parks and public green spaces.

The group reached consensus on the following statements:
15A. *Reduce the amount of turf and non-xeric landscape areas by regulation on a regional basis through local ordinances.*

15B. *Reduce the amount of irrigated golf course acreage proportionate to population and maintain green spaces in parks while encouraging conservation practices and xeric landscaping.*

16. ***Water Quality:*** The question that this alternative raised was: How should water quality issues be addressed in the plan?

The group discussed that the I.S.C. maintains that the regional water plan must include "specific and practical means for addressing water quality management." Members of the Water Assembly pointed out water quality is one of the expressed in the goals of the plan, and the group agreed that a water quality analysis should be an important component of the plan and should be done on the converged scenario. Water quality should not be viewed as a separate issue or alternative in the plan. The group also

observed that water quality issues should be addressed in a way that does not affect water quantity.

The following statement was reached by consensus:
The issue should be deleted- Water quality is not an alternative but must be a basic ingredient of the Regional Water Plan as referenced in the Mission, Goals and Objectives and as required by law.

Summarized Results

1 - Importation of water ~~rights~~ to the region.

The Region should seek any water that is available including desalination where feasible.

2 - Watershed management

Implement local and regional watershed management plans through all land and water agencies in the area to increase water yield and prevent erosion.

3 - Water banking

Water banking should be implemented within the Region in order to maximize beneficial use and to permit the water right to stay with the owner while the water is leased for a period of time.

4 - Future rainfall – based - on 1990's?1950's? 1600's?

The water plan baseline hydrologic data will be defined by the Analysis Team and approved by the Action Committee and the Water Resources Board.

5 - San Juan/Chama numbers? – less than 75,844?

The San Juan Chama water allotment that will be used in the projected scenario is the amount currently contracted to users within the Middle Rio Grande.

6 - Ag use of water for ranching/livestock in region

Deleted – Already in subregions plan

7 – Store minimum volume at Elephant Butte – 400,000 af?

Maintain compact requirements

8 - Instream flow rights

Consider in-stream flow to preserve riparian health and quality of life. (No consensus)

9 - Authorization for additional storage at Abiquiu, impacts of upstream storage

As a plan the Region should seek to store as much water upstream as possible to the extent that it may be approved by regulatory authorities. This would require Congressional authorization.

10 - Current projection for population growth – a given?

The water plan will be based on BBER population projections.

11 – Desalination

See "Importation of Water to the Region".

12 - How does ownership of water rights figure into planning process?

The ownership of water rights is an issue properly dealt with at the State level and not within a regional water plan. However, the Region endorses the early adjudication of water rights in the Middle Rio Grande Region

13 - How can/should water consumption be reduced on farms?

Promote on-farm water conservation.

14 - How can/should diversions be reduced in conveyance systems?

Focus on high volume conveyance systems that don't reach the river or recharge the aquifer.

1. ***Respecting recharge areas for local wells***
2. ***Respecting the cultural values***
3. ***Consider the environmental impact on riparian health***

15 - ~~Conservation and yard size~~ Landscaping Conservation

15A ***Reduce amount of turf and non-xeric landscape areas by regulation on a regional basis through local ordinances.***

15A ***Reduce the amount of irrigated golf course acreage proportionate to population and maintain green spaces in parks while encouraging conservation practices and xeric landscaping.***

16 - Water quality

Deleted – Water quality is not an alternative but must be a basic ingredient of the Regional Water Plan as referenced in the Misson, Goals and Objectives and as required by law.

Summary Notes
Regional Coordination Meeting
Socorro/Sierra Region and Middle Rio Grande Region
17 July, 2003

As part of a continuing series of coordination meetings, representatives of the Socorro/Sierra Water Planning Region, of the Middle Rio Grande Water Planning Region, and of the Interstate Stream Commission met on July 17 in Los Lunas.

Attendees were:

Socorro/Sierra Region:
John Carangelo, Socorro Soil and Water Conservation District
Joanne Hilton, D. B. Stephens and Associates
Middle Rio Grande Region:
Bob Wessely, Water Assembly
Bob Prendergast. Water Assembly
Joe Quintana, Mid Region Council of Governments
Interstate Stream Commission:
Mary Helen Follingstad, Regional Water Planning Coordinator

Three topics were discussed:

- Draft Report Material from S. S. Papadopulos and Associates, Inc.
- Offsets between San Acacia and Valencia/Socorro County Line
- Import/Export between Regions

Draft Report Material from S. S. Papadopulos and Associates, Inc.

There was unanimous agreement that the coming Phase III report from S. S. Papadopulos and Associates would not be timely for ingestion into either region's year 2003 regional water plan. Each region will use what they can from the preliminary work provided by SSPA so that they can move forward in completion of their plans.

Offsets between San Acacia and Valencia/Socorro County Line

Hydrological reports tend to regard the boundary between the two regions to be at the San Acacia measurement point. The regional planning efforts require the boundary to be at the Valencia/Socorro County Line. San Acacia lies about twenty miles south of the County Line. For planning purposes, it is necessary to establish offsets or corrections so as to adjust consumptive use numbers that appear in the hydrological reports. Establishing these corrections allows comparisons of the outflow from the Middle Rio Grande Region with the inflow to the Socorro-Sierra region.

There was unanimous agreement that both regions would use the S. S. Papadopulos draft data table numbers (below) for the consumptive uses between the County Line and San Acacia, rounded to the nearest 1000 afpy. MRG consumption would decrease from 385,000 afpy and MRG transmittal to S/S would increase from 100,000 afpy, both by an increment of 69,000 afpy

	Area (acres)	Consumptive Use (afpy)
Irrigated Agriculture	5,719	16,482
Riparian	12,400	44,829
Open Water Evaporation	1,397	7,787

Import/Export between Regions

Middle Rio Grande reported that in light of recent transfers of water rights, import to Middle Rio Grande from Socorro/Sierra was under consideration as an alternative action. Socorro/Sierra reported that the Socorro/Sierra Regional Water Plan would recommend against any export of water. Socorro/Sierra further reported that the Socorro County Commission had passed a resolution to discourage any export of water from the Socorro/Sierra Region. Both regions agreed to report this information to their respective planners.