

## Appendix 14 - Epilogue

### Post Draft Plan Process

|  |    |
|--|----|
| 1. Post Draft Plan Process .....   | 2  |
| Memo re Orientation Workshops - 10-14-03 .....                             | 2  |
| Memo dated November 5, 2003 .....  | 3  |
| Draft Endorsement Resolution (October) .....                               | 4  |
| Open House Flyer.....  | 6  |
| Open House Poster .....  | 8  |
| Open House Summaries .....   | 10 |
| Individual Comment Sheet.....  | 19 |
| Open House Brochure .....  | 20 |
| December 2003 Meeting Agenda.....  | 31 |
| List of Endorsement Entities .....   | 32 |
| 2. Data Discrepancies .....  | 35 |
| I. Water Use.....  | 35 |
| irrigated acreage .....  | 35 |
| riparian usage .....   | 37 |
| public water supply .....  | 38 |
| II. Population.....  | 38 |
| 3. Comments on Plan .....  | 40 |
| Comments From Openhouses .....   | 40 |
| Comments from Jack Leaf, La Jara Mutual Domestic, 11-7-03 .....            | 43 |
| Comments Received From Jack Leaf.....                                      | 44 |
| Additional comments from Jack Leaf, following November 15 Open House:..... | 45 |
| Comments Received From Don Buttry .....                                    | 45 |
| Fifty Year Water Plan For Regina MDWCA, Inc.....                           | 46 |
| 50-Year Plan For La Jara Water Users Association.....                      | 46 |
| Comments to Water Resources Board - December 17, 2003.....                 | 47 |
| Additional Information from Mr. Torrez .....                               | 49 |

*Note: Comments gathered during planning process can be found in Appendices for Section 2, Public Involvement.*

## 1. Post Draft Plan Process

From: Río Puerco and Río Jemez Steering Committees  
Date: October 14, 2003  
Re: Orientation Workshops on Subregional Draft Water Plan

The Steering Committees for the Río Puerco and Río Jemez subregional water planning effort would like to invite you to an orientation workshop on the draft plan. The aim is to familiarize you with the contents with the goal of obtaining your endorsement. The dates of the workshops are October 21 in Cañon at the Community Center and October 22 in Cuba at the Community Center, both starting at 6 pm.

The New Mexico Interstate Stream Commission, which oversees regional water planning, requires local government endorsement and recommends endorsement resolutions. Rather than limiting approval to local governments in the subregion, the Steering Committees decided that it would be more useful to invite the major land managers and water use planners / providers to a meeting, hoping to obtain their endorsements as well. The role of the regional water plan should be to create a space whereby the implementers discuss how to manage the entire watershed, while allowing the flexibility necessary to each governmental entity.

Copies of the draft plans --both the regional and subregional-- and their respective summaries are available at:

- Cuba Village Hall
- Jemez Springs Village Hall
- San Ysidro Village Hall
- Cuba Soil & Water Conservation District Office
- Jemez Pueblo
- Zia Pueblo
- Torreon Chapter House
- Cuba Library
- Jemez Library
- Sandoval County Commission

The October 2003 drafts are also accessible at the website, [www.WaterAssembly.org](http://www.WaterAssembly.org). The entire plan can be found by clicking on the topic, "The Water Plan." By scrolling down the page to "Chapter 12," the subregional plan may be accessed. Comments and suggestions should be addressed: Cuba Soil & Water Conservation District, P.O. Box 250, Cuba, New Mexico 87013, or by clicking on the mailbox icon at the end of each section. The complete plan is to be delivered to the ISC by the end of 2003.

The draft plans are really the beginning of the plan. To be successful, implementation will require a successful weaving of efforts so that watershed management becomes a reality.

If you have any questions, please call Peggy Ohler at Cuba Soil & Water Conservation District Office, 289-3950, or Elaine Hebard at 247-8767.

From: Río Puerco and Río Jemez Steering Committees  
Date: November 5, 2003  
Re: Subregional Draft Water Plan

Open Houses: The Steering Committees for the Río Puerco and Río Jemez subregional water planning effort would like to invite you to Open Houses on the draft plan. The date will be November 15, in Cañon at the Community Center from 10:00 to 12:00 and in Cuba at the Community Center from 3:00 to 5:00. A flyer is enclosed in hopes that you can help us get the word out!

Endorsement Resolutions: Included in this memo is the draft resolution distributed at the Endorsement Workshops. The New Mexico Interstate Stream Commission (ISC), which oversees regional water planning, requires local government endorsement and recommends endorsement resolutions. The intention is to obtain endorsements of the draft Río Puerco and Río Jemez Subregional Water Plan from local governments --municipal, county, special district, acequia or soil and water conservation district--, tribal governments, domestic water associations, major land managers, and water use planners / providers in the subregion. With such endorsements, the subregional water plan has a better chance of being implemented. Please consider endorsing the resolution and returning it to Cuba Soil and Water Conservation District (CS&WCD), P.O. Box 250, Cuba, NM 87013, as soon as possible so that it can accompany the plan to be sent to the ISC by the end of 2003.

Potential Water Projects: In accord with §72-4A-5.A, NMSA, the New Mexico Water Trust Board is to

"adopt rules governing terms and conditions of grants or loans recommended by the board for appropriation by the legislature from the water project fund, giving priority to projects that have urgent needs, *that have been identified for implementation of a completed regional water plan that is accepted by the interstate stream commission* and that have matching contributions from federal or local funding sources."

In order to be considered for funding, projects should be identified in the draft Plan for implementation, even if in draft form. These projects might be to:

- store, convey and deliver of water;
- implement the Endangered Species Act;
- restore and manage watersheds;
- prevent floods; and
- conserve, recycle, treat or reuse water.

Please send such project lists to CS&WCD as soon as possible, and no later than December 1, 2003.

Copies of Draft Plan And Summaries: Copies of the draft Sub-Regional Water Plan have been distributed and can be found in Village Halls, County Managers, Tribal Offices, Libraries, and CS&WCD. The draft is also accessible at the website, [www.WaterAssembly.org](http://www.WaterAssembly.org). The entire regional water plan can also be accessed by clicking on the topic, "The Water Plan." Chapter 12 is the subregional plan. Comments and suggestions should be addressed: Cuba Soil & Water Conservation District or by clicking on the mailbox icon at the end of each section on the website. Due date for comments is December 1, 2003.

Steering Committees: The draft plans are really the beginning of the process. To be successful, implementation will require everyone working together. Ideas and support to carry this project forward are crucial. Please consider how this might be accomplished, and join the Steering Committees or submit the suggestions.

Contact: For more information, or to send questions or comments, please contact Peggy Ohler at CS&WCD, at 289-3950 or <[pegohler@yahoo.com](mailto:pegohler@yahoo.com)>, or Elaine Hebard at 247-8767 or <[emhebard@unm.edu](mailto:emhebard@unm.edu)>.

**DRAFT**

**RESOLUTION NO. 2003 – \_\_\_**

**A RESOLUTION IN SUPPORT OF  
THE RÍO PUERCO Y RÍO JEMEZ SUBREGIONAL WATER PLAN**

**WHEREAS**, the diverse communities, water users and stakeholders in Río Puerco y Río Jemez Subregional Water Planning Region, part of the Middle Río Grande Water Planning Region, wish to work cooperatively to protect, preserve and enhance the sustainability of water resources of the Region, and

**WHEREAS**, the Río Puerco y Río Jemez Subregional Water Planning Steering Committees, which are comprised of diverse constituencies in the watersheds, have undertaken a regional water planning process with extensive public involvement, and

**WHEREAS**, the planning process had the benefit of \$35,000 in grants from the New Mexico Interstate Stream Commission, as well as contributions from from Cuba Soil & Water Conservation District and other participants, and

**WHEREAS**, the Steering Committees have identified numerous issues including the intense variability of supply from year to year, the strong potential for decades of drought, the relationship between surface water and ground water, the need to respect water rights as personal property, the need to recognize public welfare interests of the community, and the need for wise stewardship to protect future generations, and

**WHEREAS**, the Steering Committees have adopted the following mission statement:

*The residents of the Río Puerco y Río Jemez Sub-watersheds promote a sustainable balance between the availability and use of water, promote healthy watersheds, and retention of a rural lifestyle to benefit local communities and residents, and,*

**WHEREAS**, the Steering Committees have adopted the following goals:

1. *Ensure treaty, water and acequia rights to preserve and protect local agricultural traditions.*
2. *Restore and manage the watersheds on public and private land to enhance water production, retention, and quality, to reduce the threat of wildfire, and to preserve natural systems dependent on water.*
3. *Retain land use patterns that support and ensure a rural lifestyle and economy.*
4. *Promote education for area residents regarding the connection between land use, water and environmental health, and ways to conserve water. These concepts should be incorporated into the curriculum of area schools'.*
5. *Support the cultural and spiritual values of water, and the universal need for and importance of water.*
6. *Provide for monitoring implementation of the water plan.*
7. *Promote the conservation of water, and*

**WHEREAS**, through this planning process, the Steering Committees have developed a set of objectives and alternatives to support the mission and goals, which may be pursued jointly by the Steering Committees, by an individual entity, or by entities working together in a cooperative effort; and

**WHEREAS**, the sixteen regions of the state are expected to submit a regional plan to the New Mexico Interstate Stream Commission for acceptance and use in the statewide water plan, and

**WHEREAS**, the Interstate Stream Commission has requested that each Regional Water Plan be endorsed by the local governments in the Region prior to its submittal to the Interstate Stream Commission, and

**WHEREAS**, the Steering Committees decided to ask for endorsements from major land managers and water use planners / providers as well;

**NOW, THEREFORE, BE IT RESOLVED** by the Governing Body of \_\_\_\_\_, that, the Governing Body endorses the Río Puerco y Río Jemez Subregional Water Plan and will evaluate the alternatives in developing future water plans.

This resolution was passed by the Governing Body of \_\_\_\_\_ during its regular meeting on the \_\_\_\_ day of \_\_\_\_\_ in the year 2003.

\_\_\_\_\_  
NAME

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

Restore and Manage and our Watersheds

Promote Water Conservation

Support Cultural and Spiritual Values of Water

**IMAGINE**  
**THE RIO PUERCO AND RIO JEMEZ**  
**IN 2050**

For over four years a volunteer citizens group called the Río Jemez and Río Puerco Watershed Planning Steering Committee has held public forums to develop a Mission Statement and a set of Goals and Alternatives in order to build a vision for the two watersheds for the next fifty years. They incorporated public input into a set of actions, or scenario, as the framework of our subregional water plan.

The public can view the FINAL - Fifty Year Water Plan for the Rio Puerco and Rio Jemez Subregions and see that the scenario portrays our *collective* visions and values. Please come to learn about the plan and discuss implementation.

Ensure Treaty, Water, and Acequia Rights

Educate about land use and water

Protect Local Agricultural Traditions

Retain a rural lifestyle and economy

**HOW WILL WE IMPLEMENT THE WATER PLAN?**

PLEASE ATTEND THE SUBREGIONAL WATER PLAN  
OPEN HOUSE

Saturday, Nov. 15, 2003  
Jemez Valley Community Center  
Cañon, New Mexico  
10:00 AM to Noon

Saturday, Nov. 15, 2003  
Cuba Senior Center  
Cuba, New Mexico  
3:00 to 5:00 PM

# HOW WILL WE IMPLEMENT THE WATER PLAN? YOUR PARTICIPATION IS CRUCIAL

CUBA SOIL AND WATER CONSERVATION DISTRICT  
PO Box 250  
Cuba, NM 87013

## PROGRAM

- **View the Plan**
- **Talk to Steering Committee Members**
- **Learn about the process**
- **Read the Mission, Goals and Alternatives**
- **Read the Scenarios**
- **Discuss Implementation of the Plan**
- **Volunteer**

**A Regional Water Plan must try to represent the diversity of our region. All of us need to be involved to implement the plan. Activities such as holding topical workshops and educational events need to be planned in order to implement the goals. Your assistance is essential! The Steering Committee meets monthly in both watersheds. For more information, please contact Peggy Ohler at the Cuba Soil and Water Conservation District, (505) 289-3950 or <pegohler@yahoo.com>. Information about our activities and the regional water planning can be found at [www.WaterAssembly.org](http://www.WaterAssembly.org) then scroll down to “The Subregions - Rio Puerco y Rio Jemez.”**

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## YOUR PARTICIPATION IS CRUCIAL

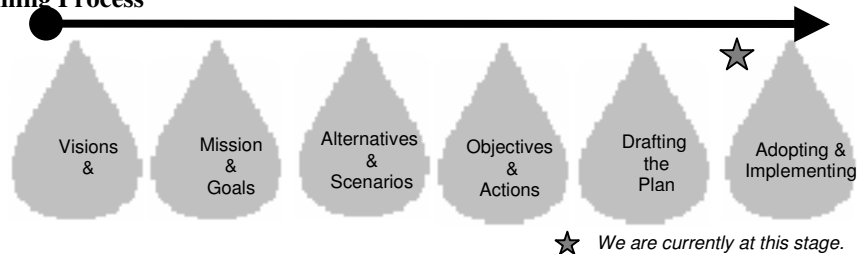
**A Regional Water Plan must try to represent the diversity of our region. All of us need to be involved to implement the plan. Activities such as holding topical workshops and educational events need to be planned in order to implement the goals. Your assistance is essential! The Steering Committee meets monthly in both watersheds. For more information, please contact Peggy Ohler at the Cuba Soil and Water Conservation District, (505) 289-3950 or <pegohler@yahoo.com>. Information about our activities and the regional water planning can be found at [www.WaterAssembly.org](http://www.WaterAssembly.org), then scroll down to “The Subregions - Rio Puerco y Rio Jemez.”**

*(please note - this was printed on 14" paper)*

*Please Note: The following were posted on science fair display boards, with each goal on one or more board, plus ones for the mission and goals, and the public welfare statement, all with comment sheets on the table in front of each board. Additionally, attendees were handed a comment sheet and a brochure.*

## WELCOME BIENVENIDOS

### The Planning Process



The Río Puerco and Río Jemez Subregional Water Plan Steering Committees have worked hard to develop a water plan incorporating the input from the subregions. The process, detailed in the plan itself, involved several workshops where mission, goals and alternatives were first identified and then adopted.

Using those as a basis, community members developed scenarios of how they wanted the watersheds to look in 50 years from various perspectives, such as environmental, village and agriculture. At the May Workshop, these scenarios were presented and attendees worked toward creating a common scenario.

Since then, the Steering Committees reviewed the input and created charts containing the goals, objectives, actions, length of time, funding and policies, and benefits. These charts are posted throughout the room, along with the original mission, goals and alternatives. They form the basis of the plan.

Every one of the suggestions contained in the plan came from residents in the subregions. The plan is advisory in nature, as there is no authority to enforce it. The role of the regional water plan should be to create a space whereby the implementers discuss how to manage the entire watershed, while allowing the flexibility necessary to each governmental entity. Various entities --villages, acequias, tribes, land owners and managers-- are responsible for implementing what they choose. Together, the watershed can be managed.

The draft plan is really the beginning of the process. To be successful, implementation will require everyone working together. As you read the goals, objectives and potential actions, please consider how they might be implemented. For example, how might the Goal to promote education for area residents regarding the connection between land use, water and environmental health, and ways to conserve water be achieved? By a subcommittee! If that interests you, please sign up!

### Mission Statement

The residents of the Río Puerco y Río Jemez Sub-watersheds promote a sustainable balance between the availability and use of water, promote healthy watersheds, and promote retention of a rural lifestyle to benefit local communities and residents.

### Non-Prioritized Goals

- Restore and manage the watersheds on public and private land to enhance water production, retention, and quality, to reduce the threat of wildfire, and to preserve natural systems dependent on water.
- Support the cultural and spiritual values of water, and the universal need for and importance of water.
- Ensure treaty, water and acequia rights to preserve and protect local agricultural traditions.
- Retain land use patterns that support and ensure a rural lifestyle and economy.
- Promote the conservation of water.
- Promote education for area residents regarding the connection between land use, water and environmental health, and ways to conserve water. These concepts should be incorporated into the curriculum of area schools.

- Provide for monitoring the implementation of the water plan.

**Alternative Actions**

At many public meetings and workshops across the region over the past four years, the general public developed suggestions to manage the regions's water, and prioritized them:

1. Protect Water Rights
2. Manage and Restore our Watersheds
3. Manage Growth and Land Use Together
4. Reduce Water Demand
5. Increase Water Storage Capacity in Rural Areas
6. Manage Drought
7. Reuse Wastewater (Gray)
8. Identify fire-fighting water
9. Prohibit sale of water from region
10. Implement Public Education Program
11. Install Domestic Supply Wells
12. Reduce Water Loss in Acequias
13. Capture Flood Flows
14. Use Surface and Groundwater in Combination
15. Remove Trace Elements From Water to Increase Supply

**Fifty Year Water Plan For The  
Río Puerco And Río Jemez Sub-Regions**

Contains the mission, goals, objectives, actions, length of time, funding and policies, and benefits.

**Combined Rio Puerco and Rio Jemez Sub-Regional Scenario**

In August and September the Río Puerco (RP) and Río Jemez (RJ) Steering Committees met together and worked on combining the two Scenarios into one Scenario for both sub-regions. As it turned out, some of the Alternatives (Actions) were already reflected in the Mission Statement or Goals, hence they were deleted as Alternatives. Also, some Alternatives got included as either Objectives or as Actions. To ensure that as much of the public comment as possible was included in the final Scenario the following list was made to determine where each Alternative was included.

| <b>Prioritized Water Management Alternatives (Actions)</b>            | <b>Found in Plan</b> |
|---|----------------------|
| Protect Water Rights  | Goal 3               |
| Manage and Restore Our Watersheds                                     | Goal 1               |
| Manage Growth and Land Use Together                                   | In Goal 4            |
| Reduce Water Demand, “Balance Demand and Use”                         | In Mission           |
| Increase Water Storage Capacity in Rural Areas                        | In Goal 4            |
| Manage Drought  | In Goals 1, 3, 4, 5  |
| Reuse Wastewater (Graywater)  | In Goal 5            |
| Identify Fire-Fighting Water, Provide for Residential Fire Protection | In Goal 4            |
| Prohibit Sale of Water From Region, Don't Sell Water Out of the Area  | In Goal 3            |
| Implement Public Education Program                                    | Goal 6               |
| Install Domestic Supply Wells   | In Goal 4            |
| Reduce Water Loss in Acequias   | In Goal 5            |

|   |           |
|---|-----------|
| Capture Flood Flows                                 | In Goal 5 |
| Use Surface and Groundwater in Combination          | In Goal 4 |
| Remove Trace Elements From Water to Increase Supply | In Goal 4 |
| Protect Water Rights                                | Goal 3    |
| Manage and Restore Our Watersheds                   | Goal 1    |

**GOAL: RESTORE AND MANAGE THE WATERSHEDS ON PUBLIC AND PRIVATE LAND TO ENHANCE WATER RETENTION AND QUALITY AND TO REDUCE THE THREAT OF WILDFIRE, AND TO PRESERVE NATURAL SYSTEMS DEPENDENT ON WATER**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Restore a fire-adapted watershed**

- Thin forests and woodlands in an ecologically sound manner (A-66)
- Treat grassland brush in an ecologically sound manner
- Develop a network of natural and artificial fire and fuel breaks to define 5000+ acre fire management units throughout the watershed
- Manage forage utilization to maintain ground cover and carry fire
- Apply prescribed fire frequently and extensively to established fire management units
- Create defensible spaces around all dwellings and structures
- Provide for adequate fire protection of structures to facilitate burning

**OBJECTIVE: Decrease soil erosion and increase water retention and infiltration**

- Expand watershed management programs (A-33)
- Promote good soil management practices
- Reduce and prevent surface water runoff on grazed lands
- Reduce development and increasing use of unpaved roads
- Use low impact agricultural methods such as shallow or no plowing
- Apply soil conservation techniques such as installation of field borders
- Improve grazing management through methods such as fencing, pasturing, rotational grazing
- Laser level irrigated fields
- Line or pipe irrigation ditch systems, or segments most prone to erosion
- Improve groundcover on rangeland
- Laser level irrigated fields
- Line or pipe irrigation ditch systems, or segments most prone to erosion
- Improve groundcover on rangeland

**OBJECTIVE: Reduce, prevent and repair incising of arroyos**

- Reduce formation of, and stabilize head cuts, gullies and arroyos
- Use Best Management Practices to catch soils and fill arroyos
- Repair deeply eroded cuts with heavy equipment
- Repair smaller cuts with grade stabilization structures such as weirs, net wire diversions, rock and brush dams
- Monitor and maintain all structures

**OBJECTIVE: Reduce, prevent, and repair habitat loss along streams, arroyos, and in wetland and riparian areas**

- Re-vegetate along streams and ephemeral waterways, plant willow and cottonwood trees at unstable banks and along non-vegetated segments
- Construct fencing to protect riparian and wetland areas, and plantings from livestock

- Stabilize channel banks
- Re-create and induce stream meanders
- Enhance and protect floodplains
- Prohibit development in areas within flood plains, or which have hydrologic problems such as storm water ponding, poor drainage, high water table
- Prohibit development in wetlands or riparian areas

**OBJECTIVE: Increase the bio-diversity and production on public and private lands including wild and domestic species**

- Manage sagebrush monocultures and reduce numbers of juniper trees
- Remove non-native vegetation from riparian areas
- Control noxious, invasive, and non-native weed species (A-1)
- Seed with native grasses, and plants
- Develop grass banks and other cooperative programs
- Develop drought management plans for grazing

**OBJECTIVE: Provide, consistent and sustainable sources, and adequate distribution of rangeland water**

- Drill wells for development of alternative upland water
- Install improved well pump technology on existing wells
- Install water pipelines and drinking troughs
- Use various methods to reduce competition for forage between livestock and wildlife

**OBJECTIVE: Maintain agriculture and ranching as part of the whole ecosystem**

- Implement management practices that are environmentally friendly and sustainable
- Create and implement local management plans
- Promote an attitude of stewardship of the integrity of the ecosystems

**OBJECTIVE: Maintain the scenic and ecological conditions which attracted our ancestors and us to the area**

- Create and implement local management plans
- Include forests, rangelands wetland/riparian areas; ranching and agriculture

**GOAL: SUPPORT THE CULTURAL AND SPIRITUAL VALUES OF WATER, AND THE UNIVERSAL NEED FOR AND IMPORTANCE OF WATER**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Realize the spiritual benefits of ancient forests, free-flowing rivers, living deserts and the abundance of life flourishing in all these areas, aside from the economic benefits**

- Promote appreciation of the dependence of all life on water
- Promote the sanctity of watercourses
- Promote a spring water festival in which knowledge of water as a sacred gift is restored by blessing of the local acequias and streams by priests and medicine men
- Promote a fall harvest festival linked to the County Fair to celebrate the perseverance and cohesion of rural agricultural communities
- Promote water events throughout the year to keep people focused on the importance of water and soil management
- Develop public parks and interpretive areas along perennial streams near villages
- Develop adopt-a-watercourse programs
- Develop community gardens
- Maintain local cultural and religious traditions

**GOAL: ENSURE TREATY, WATER, AND ACEQUIA RIGHTS TO PRESERVE AND PROTECT LOCAL AGRICULTURAL TRADITIONS**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Promote agriculture and its beneficial use of water**

- Form local agricultural cooperatives to work fallow land
- Support acequia and agricultural land improvement programs

**OBJECTIVE: Maintain the integrity of the traditional acequia systems that have existed for generations**

- Protect acequia priority of rights-of-way
- Encourage acequias to pass bylaws to review any change of diversion in accord with §73-2-21(E)
- Encourage acequias to pass bylaws to create a water bank in accord with §73-2-551
- Map, catalog, and describe acequias including annual water use
- Identify, quantify, and adjudicate surface water rights and order of water utilization (A-71)

**OBJECTIVE: Increase efficiency of irrigation ditch systems**

- Develop a consistent and sustained supply, and distribution of irrigation water
- Provide annual maintenance to all irrigation ditches
- Line or pipe irrigation ditch systems
- Construct head, and farm gates for water control
- Maintain and repair culverts, flumes, head, and farm gates
- Re-contour and repair segments of ditches to reduce gradient, and prevent incising
- Laser level fields

**OBJECTIVE: Keep water with the land**

- Establish a severance fee to discourage removal of water and land from an acequia system
- Develop mechanisms to ensure water rights are not lost if water is kept in or returned to a waterway
- Develop mechanisms to prevent transfer of surface and ground water rights from their locality
- Prevent sale of water out of sub-regions
- Promote customary laws & practices in existence prior to the 1848 Treaty of Guadalupe Hidalgo that promote agriculture and communal property

**OBJECTIVE: Promote respect for rural, tribal, farming, and ranching lifestyles**

- Form lobbying groups
- Form local acequia and agricultural Associations
- Educate about the importance of farming and ranching

**GOAL: RETAIN LAND USE PATTERNS THAT SUPPORT AND ENSURE A RURAL LIFESTYLE AND ECONOMY**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Base regional growth, planning, and zoning on retaining the health of the entire ecosystem**

- Tie land-use to demonstrated availability of water
- Manage growth within the limits of water, and a rural landscape (A-52)
- Require water availability before land subdivision
- Manage growth by putting geographical or numerical limits on population

- Implement land use plans that differentiate between rural, suburban, and urban areas
- Maintain large areas of mostly vacant and predominantly undeveloped land, with limited low-density housing
- Encourage designated areas for higher density housing with clean, eco-friendly, nearby businesses, and industries
- Use creative planning that does not require commuting
- Include the cost of environmental damage when assessing planning alternatives
- Consider the cumulative affects of development

**OBJECTIVE: Develop a program that systematically fosters cooperation among various sectors of the sub-regions with water as a primary focus**

- Adopt policies to integrate land use planning and water resource management (A-30)
- Create an inter-water-systems board
- Enhance cooperation and coordinate water use among area water systems
- Promote local control and discretionary authority
- Implement and apply the right of self-determination in local governance of water issues

**OBJECTIVE: Create a sustainable economy that bolsters self-sufficiency of the sub-regional communities, and helps prevent loss of the agrarian lifestyle**

- Develop local agricultural cooperatives
- Encourage development of a wide diversity of crops throughout the sub-regions such as native and traditional crops, contemporary crops, and new and emerging crops
- Develop markets for locally grown produce and meat (A-11)
- Promote farmers' markets
- Develop creative and certified marketing of livestock
- Implement new farming technologies that will help to increase production
- Plan and maintain a schedule for rotation of fallow acres
- Reduce the amount of presently fallow cropland
- Manage the numbers of livestock and tilled acres that best benefits the environment and economy together

**OBJECTIVE: Protect agricultural lands from development**

- Develop "Rural Agricultural Areas"
- Develop protective zoning for acequia irrigated lands
- Require that planning and zoning consider impacts on traditional cultures and lifestyles, and cumulative effects
- Prevent paving over and building on agricultural lands

**OBJECTIVE: Protect and improve the quality of the domestic supply of surface and ground water**

- Identify and protect groundwater recharge areas (A-47)
- Ensure modernized, well-maintained water systems
- Limit and reduce vehicular water crossings
- Clean up watercourses, remove garbage, trash, and vehicles from arroyos
- Require sewage treatment systems in higher density communities (A-26)
- Use constructed wetlands for final sewage treatment (A-36)
- Remove trace elements

**OBJECTIVE: Provide for increased, consistent and sustainable sources of both domestic and agricultural water**

- Implement projects to thin trees and brush on public and private land
- Implement controlled burn projects on public and private land
- Construct water storage reservoirs and tanks
- Install community domestic supply wells
- Identify and provide for residential fire-fighting water
- Limit domestic wells to 16 per section

- Address ground/surface water interactions in state water-rights statutes (A-144)
- Limit wells that could impair surface or groundwater (A-61)
- Develop local drought plans (A-18)

**GOAL: PROMOTE CONSERVATION OF WATER**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Develop water-wise residents and communities**

- Disseminate water-saving information (A-56)
- Develop local water budgets to understand water recharge and water use
- Develop local water conservation and drought plans (A-18)
- Adopt graduated water rates in all domestic systems (A-21)
- Institute incentives for water conservation and recycling
- Adopt a conservation fee added to all water systems for promotion of water conservation
- Meter all water supply wells (A-8)
- Meter all surface water diversions (A-7)

**OBJECTIVE: Increase efficiency of water use**

- Encourage use of new water-saving technologies (A-22)
- Encourage greywater reuse (A-24)
- Encourage rainwater harvesting (A-44)
- Improve storm water management (A-34)
- Capture flood flows
- Reduce water loss in acequias
- Increase irrigation efficiency (A-10)
- Reduce artificial open water evaporation (A-45)
- Fund domestic water cooperatives to improve their water systems
- Fund acequias to increase operating efficiency (A-60)

**GOAL: PROMOTE EDUCATION FOR AREA RESIDENTS REGARDING THE CONNECTION BETWEEN LAND USE, WATER AND ENVIRONMENTAL HEALTH, AND WAYS TO CONSERVE WATER**

**OBJECTIVES AND POTENTIAL ACTIONS**

**OBJECTIVE: Create water conscious communities and assist future generations in learning about water**

- Develop school curricula and outdoor projects on subjects such as soil and water conservation, and alternative energy and building methods (A-56)
- Develop school curricula concerning water conservation methods, such as, mulching, composting, swales, rain barrels and other catchment systems, and uses hands on training
- Provide a secondary education facility
- Create a Natural Resource Educational Program (partner school districts with agencies such as Cuba Soil and Water Conservation District)
- Educate about ways to wisely use and reuse water
- Provide seminars and courses at local schools

**OBJECTIVE: Educate people (farmers and non-farmers) about the importance of land and water stewardship, and farming and ranching**

- Share local agriculture knowledge



- Share local knowledge and traditions regarding nurturing the land and husbanding the water
- Make educational packets available at Pueblo and Forest Service offices
- Promote an attitude of stewardship of the integrity of the ecosystems
- Involve children and young adults in agriculture
- Educate newcomers and visitors about local traditions and lifestyles

## **GOAL: PROVIDE FOR MONITORING THE IMPLEMENTATION OF THE WATER PLAN**

### **OBJECTIVES AND POTENTIAL ACTIONS**

#### **OBJECTIVE: Public participation in the water planning process and water management**

- Increase monitoring and modeling of surface and groundwater (A-38)
- Develop geographic watershed information system (A-73)
- Maintain watershed steering committees
- Fund ongoing water planning (A-58)
- Ensure continued public participation in water issues (A-53) through local water assemblies

### **PUBLIC WELFARE STATEMENT**

Public welfare statements are a reflection of the public interest in the watershed. The State Engineer has the authority to deny an application to transfer water use or change in the point of diversion if it impairs other water rights holders, is contrary to conservation of water or is detrimental to the public welfare. A public welfare statement creates a mechanism to ensure that those things we value are not lost and those things that are needed for our future are protected. The following draft statement has been approved for public review by the Steering Committees.

#### **Río Jemez Draft Public Welfare Statement**

**Introduction** - This public welfare statement is part of our regional water plan to provide guidance to the State Engineer in decisions concerning applications for transfer and new appropriations of water rights that affect the Río Jemez. This public welfare statement will accomplish its purpose if conflicts are reduced in the region, and if decisions reflect the long-term future needs of the region, rather than merely responding to immediate demands. This must not be a static, final statement, but an iterative and evolving declaration which is continuously monitored by the public to ensure that it accurately reflects the welfare of the public, always remembering that there are unknown users and perspectives concerning our water resources that will need to be given a voice in the future.

**General Statement** - Water has many important values to the people in our region, which need to be appreciated and fairly balanced to ensure the overall safety, security and well being for the region. Such values include cultural, spiritual, economic, environmental and hydrologic viability for the region. In times of scarcity, everyone must share the responsibility for living within the shortage. We recognize the current deficit situation and have a duty to balance water use with renewable supply, starting now and in the future. Decisions should be made so as to keep as many options as possible open for future generations.

**Process** - We believe the “public welfare” must be safeguarded by the State Engineer through active management of our limited water resources in the decision-making process used to evaluate new appropriations and transfer of water rights. A strong decision-making process supports “public welfare”. Public welfare is equal in importance to the other two statutory criteria (impairment and conservation). Transfers of water rights must be open to all affected stakeholders and use the best available science. The public will be better served if the process encourages negotiation, not litigation. The process must provide reasonable and timely notice to and allow participation by all parties. The process must avoid automatic (or exempt) transfers or permits made outside of public review. Wet water use must be consistent with the administrative transfer of water rights (Double and triple dipping should be

avoided). The evaluation of transfer must consider both the positive and negative impacts of the transfer of water rights on both the area of origin as well as the area receiving the water rights.

**Future use of our water resources consistent with the public welfare** - The “public welfare” requires that our use of the water resources be consistent with three guiding principles:

- #1 - we maintain and improve the health of our region’s water resources;
- #2 - we encourage conservation and discourage waste (e.g., impractical or unreasonable use); and
- #3 - we optimize the efficient use of our limited water resources in the context of restoring watersheds and controlling urban growth.

The state engineer should consider the following competing water demands when evaluating new appropriations and transfers of water rights: including but not limited to health and safety concerns, economic interests, agricultural interests, environmental interests, social and cultural interests, aesthetic interests, recreational interests, and municipal and domestic interests.

- When considering health and safety concerns, the state engineer should strive to maintain and improve the quality of our water resources as a basic human right to safe drinking water.
- When considering economic interests, the state engineer should evaluate both the positive and negative impacts of the transfer of water rights on both the area of origin as well as the area receiving the water rights. Economic concerns should not be a primary consideration.
- When considering agricultural interests, the state engineer should strive to develop and maintain a vibrant and efficient agricultural ecosystem, recognizing that agriculture has economic, ecologic, historic, and cultural values.
- When considering environmental interests, the state engineer should maintain and improve ecosystem biodiversity. The state engineer should also consider instream flows as being essential for the region.
- When considering social & cultural interests, the state engineer should protect water uses which support the diversity of communities, cultures and traditions existing in our region. The promises contained in the Treaty of Guadalupe Hidalgo should be acknowledged and honored.
- When considering aesthetic interests, the state engineer should strive to maintain and improve the agricultural and riparian greenbelts along the flowing waters and ditches in our communities.
- When considering recreational interests, low consumptive recreational uses should be encouraged.
- When considering municipal and domestic needs, the State Engineer should strive to sustain an adequate water supply to meet these needs. The State Engineer should connect water use decisions with local land use decisions.

### **Subcommittee Sign-Up**



- Grissino-Mayer, H. "A 2129-year Reconstruction of Precipitation for Northwestern New Mexico, USA." Tree Rings, Environment and Humanity., Eds. J.S. Dean, D.M. Meko and T.W. Swetnam Radiocarbon: Tucson, AZ. 1996. 191-204.
- McAda, D.P. and Peggy Barroll. *Simulation of Ground-water Flow in the Middle Río Grande Basin Between Cochiti and San Acacia, New Mexico*. U.S. Geological Survey Water-Resources Investigations Report 02-4200, 2002.
- *Middle Río Grande Water Supply Study*, S.S. Papadopulos & Associates, Inc., Boulder, Colorado, August 4, 2000
- Shomaker et al, *Historical And Current Water Use In The Middle Río Grande Region* (June 2000)
- Wilson, Brian, C., et al, *Water Use by Categories in New Mexico Counties and River Basins, and Irrigated Acreage in 2000*, New Mexico State Engineer Office, Technical Report 51, Feb 2003, Santa Fe, NM.
- Stephens, Daniel B. & Associates. *Assessment of Regional Water Quality Issues and Impacts to the Water Supply*. Prepared for Mid-Region Council of Governments, Albuquerque, New Mexico,
- Within the Middle Río Grande Water Planning Region, a variety of federal, state, county, and tribal laws and regulations govern the use of water. An overview of each of these areas of law, necessary in understanding the water planning efforts, can be found in "Overview of Water Law Applicable to The Middle Río Grande Water Planning Region," and , "Issues Specific to The Middle Río Grande Water Planning Region," Susan C. Kery, John W. Utton, Peter C. Chestnut, Sue E. Umshler, January, 2003, available either at [www.waterassembly.org](http://www.waterassembly.org) or from the Mid-Region Council of Governments.
- Judicial determination of rights are made pursuant to §72- 4-17 NMSA 1978 Comp. The Jemez adjudication is *United States, et al. v. Abousleman, et al; Jemez River Adjudication*, United States District Court CIV. NO. 83-1041 JC. The NMOSE's publication, "What is an adjudication?", is available from their office or web site <[www.ose.state.nm.us](http://www.ose.state.nm.us)>.

## FURTHER INFORMATION

The reports and analyses prepared during the planning process, as well as the entire plan is available on line at [www.WaterAssembly.org](http://www.WaterAssembly.org), or at cost from Mid-Region Council of Governments at 247-1750 or from Cuba Soil & Water Conservation District, P.O. Box 250, Cuba, New Mexico 87013. Project Contacts: Peggy Ohler at 289-3950 or Elaine Hebard at 247-8767.

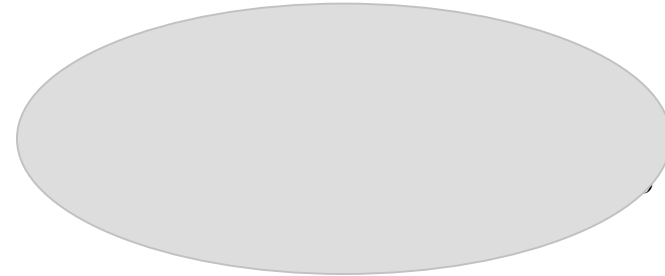
*Thanks to the Steering Committee members, and special thanks to Elaine Hebard, Judith Isaacs, Jennifer Johnson, Charlotte Mitchell, Peggy Ohler and Steve Lucero.*

Río Puerco y Río Jemez  
Sub-Regional Water Plan

2000-2050

## Synopsis of the Draft Plan

- ◆ what is regional water planning?
- ◆ what have we learned?
- ◆ what is our water picture?
- ◆ what are the issues?
- ◆ what are our values?
- ◆ what is the plan?
- ◆ what are our recommendations?

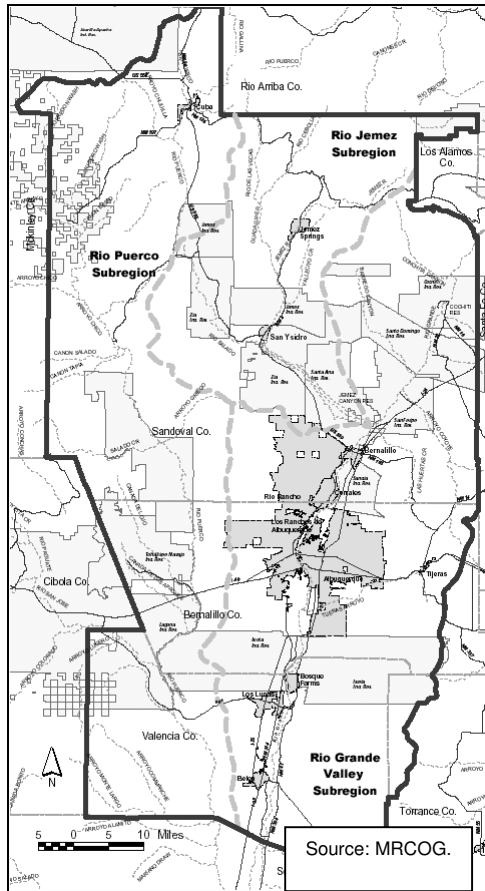


## THE KEY FACT ABOUT OUR WATER — DEMAND EXCEEDS SUPPLY

OSE's Framework, 2002

The Río Puerco y Río Jemez Subregional Water Plan is a part of the Middle Río Grande Regional Water Plan. The planning is being conducted by Steering Committees, with Cuba Soil & Water Conservation District acting as the fiscal agent.

October 2003



## WHAT IS REGIONAL WATER PLANNING?

The regional water plan is to answer five questions:

1. What is the water supply available to the region?
2. What is the region's current and projected water demand ?
3. What alternatives are available to meet the projected demand with available supplies, including management alternatives to increase supply and reduction of demand via conservation or other measures?
4. What are the relative advantages and disadvantages of each alternative?
5. What is the selected set of alternatives that comprise the plan and how will those the alternatives be implemented?

## OUR REGION

The Río Puerco and Río Jemez watersheds are part of the Middle Río Grande Region, which in turn is one of 16 water planning regions in New Mexico. We focused on the portions of the Río Puerco and Río Jemez watersheds located in Sandoval County.

Elevations range from over 11,000 ft. at the headwaters of the watersheds to 5,000 ft. at the respective confluences with the Rio Grande. Depending on the elevation, the average rainfall in the basin varies annually between about

10 to 20 inches, but recent drought has reduced that substantially. Surface water supports the region's industry, agriculture, commerce, environment and people, augmented with ground water.

Our water use is constrained by physical and legal factors, not to mention cultural and religious. The arid climate is quite variable. Neighbors are entitled to their share. Downstream users may also be impacting water resources, particularly in the Río Jemez. Due to increases in demand within and without the basins, the subregions must take steps now to protect and conserve available water resources.

## HOW IS OUR WATER MANAGED?

Two agencies, the Office of the State Engineer (OSE) and the Interstate Stream Commission (ISC), have the primary responsibility for managing our water. The New Mexico Environment Department (NMED) has lead supervision over water quality.

To administer the water, the Office of the State Engineer (OSE) issues a permit for the right to use a certain amount. These permits, or "water rights," are assigned a date, the priority of which governs administration. Pueblo water rights, not managed by the OSE, are paramount (have the most seniority), and have not been quantified, nor have the future needs and thus uses been quantified for tribal entities. Water rights in the Río Puerco, except for the Nacimiento Ditch, have not been adjudicated, while those in the Río Jemez, with the exception of federal and Pueblo rights, have. However, downstream on the Río Grande, such a judicial determination of water rights has not been done. Providing further constraints, a water shortage-sharing agreement for the Río Jemez is a delicate balance between users. Domestic well permits are issued by the OSE.

Water rights to all of the surface water have been issued – so new users have to acquire permits from existing users. Transfers of use or transfers from one point of diversion to another are regulated. The State Engineer has the authority to deny an application if it impairs other water rights holders, is contrary to conservation of water or is detrimental to the public welfare. A public welfare statement, a reflection of the public interest in the watershed, creates a mechanism to ensure that those things we value are not lost and those things that are needed for our future are protected.

The Río Grande Compact helps to ensure that water is shared by three states. The share of the Middle Río Grande, including the subregions, is governed by this agreement, which the ISC administers on behalf of New Mexico.

NMED, along with the US Environmental Protection Agency, monitors water quality for various users and uses. Water may be managed to benefit species listed as endangered due to human actions.

### WHAT WE LEARNED AND ACCOMPLISHED

During the planning process, information was gathered and analyzed, and alternatives posed and recommended. In order to answer the supply question, the way water is used must be considered. And the way water is used is partly a function of the land itself, partly of the land uses and partly of the administrative functions overlaying it all. As such, an investigation to the extent practical was performed. Better information will provide a better basis for future decisions. To ensure that the alternatives reflect the visions and values of the residents, public involvement is key. Watershed planning and management is a cooperative effort by stakeholders, municipalities and government agencies to create a long-term management plan for water resources within the watershed.

### Land Use

Land status governs water management regimes in place and potential for change. The Río Jemez watershed is approximately 1,017 square miles. The Río Puerco subregion extends from Sandoval County through Bernalillo County and into Valencia County, and has an area of approximately 2,119 square miles. The portion in Sandoval County is 22%.

| Río Jemez                 |         |            | Río Puerco (In Sandoval County) |         |            |
|---------------------------|---------|------------|---------------------------------|---------|------------|
| Ownership                 | Acres   | Percentage | Ownership                       | Acres   | Percentage |
| State Lands               | 7,027   | 1.05%      | State Lands                     | 43,848  | 5.16%      |
| Tribal Lands              | 214,099 | 31.94%     | Tribal Lands                    | 150,130 | 17.65%     |
| Private Lands             | 44,244  | 6.60%      | Private Lands                   | 257,161 | 30.23%     |
| Bureau of Land Management | 64,494  | 9.62%      | Bureau of Land Management       | 335,990 | 39.50%     |

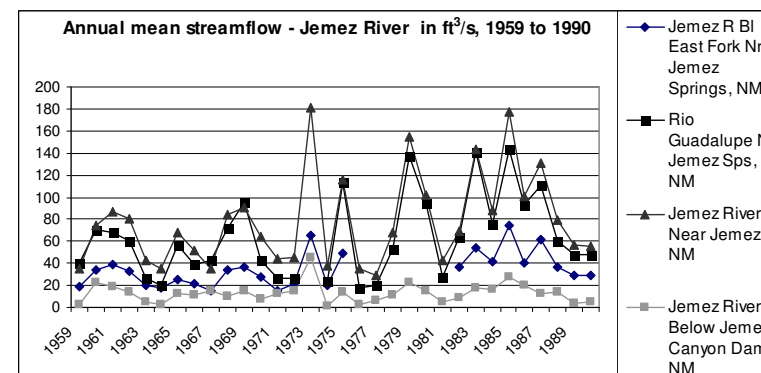
|                              |                |                |                | Acre Foot: The amount |                |
|------------------------------|----------------|----------------|----------------|-----------------------|----------------|
| Forest Service               | 251,108        | 37.46%         | Forest Service | 63,460                | 7.46%          |
| Valles Caldera Nat. Preserve | 86,942         | 12.97%         |                |                       |                |
| State Park                   | 268            | 0.04%          |                |                       |                |
| National Park Service        | 303            | 0.05%          |                |                       |                |
| Dept. of Defense             | 1,809          | 0.27%          |                |                       |                |
| <b>Totals</b>                | <b>670,294</b> | <b>100.00%</b> |                | <b>850,589</b>        | <b>100.00%</b> |

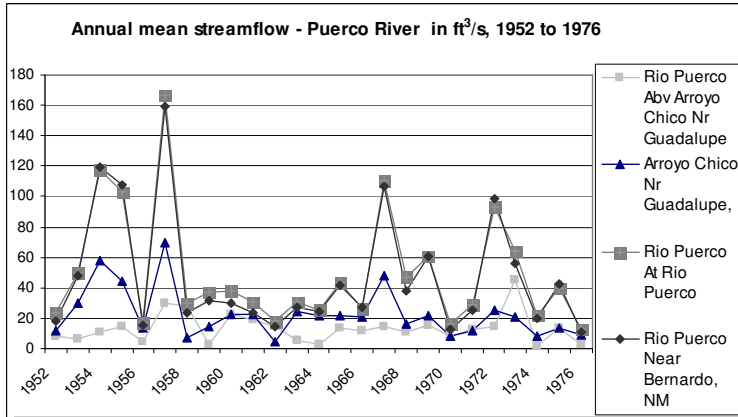
Source: BLM (correspondence of 9/24/03 & 10/7/03)

In addition to recreation, land use on public lands includes logging and grazing by permittees. Land use on tribal lands and private lands include ranching, agriculture, residential and commercial uses. Given the data discrepancies, a better picture of how land is used is needed.

### Water Supply

The Río Jemez contributes an average of 45,000 acre feet per year to the Río Grande, and the Río Puerco contributes an average of 30,000 acre feet per year. (Papadopoulos) Surface water in both basins is limited. The Río Jemez has "no flow for many days" beneath the Jemez Canyon Dam, and the Río Puerco has, "no flow for many days," to, "no flow for extended periods," along most of its length. (Shomaker) Temperature, rainfall and snowfall vary within Sandoval County, depending particularly with elevation. However, this amount varies considerably from year to year, as shown by the next two graphs - one for each watershed - compiled for the years when data was available for all gages.





Annual mean streamflow - Puerco River Compilation, in ft<sup>3</sup>/s, 1959 to 1990  
Source: USGS

What is clear is that, like other watersheds in New Mexico, in the Río Jemez and Río Puerco there is a wide variation as to water supply. Shortages may result in a water priority call on the river. If New Mexico is unable to meet its Rio Grande Compact obligations, there will be a search for available water, as has occurred in the Pecos River Basin.

In addition to the variability of the climate under normal conditions, the region also regularly incurs drought conditions. In 2003, substantially less precipitation has been received than normal. For example, from October 2002 to September 2003, Jemez Springs received 65% of its average. Ultimately, a Drought Plan and a Conservation Plan are expected to be included.

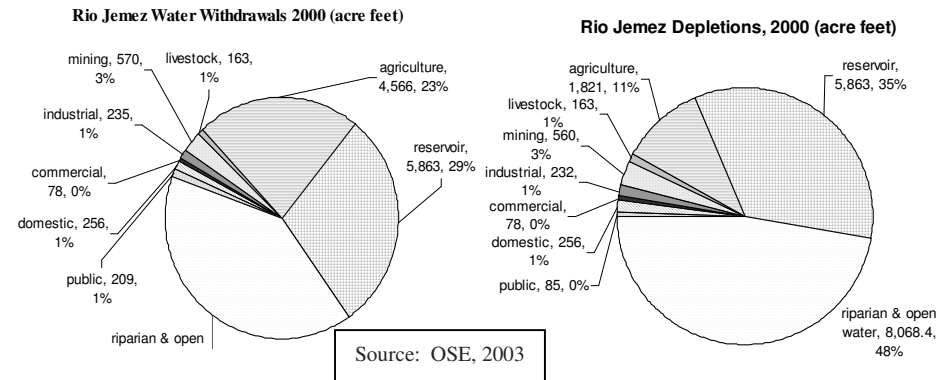
### Water Use

How water is used is in great part framed by how water has been used in the past as well as being a response to the topography and climate. Comparing supply with use, or demand, gives a water budget of inflows and outflows. The challenge here is the lack of specific data, making it difficult to reconcile supply and demand. Particularly lacking is data as to the water usages and needs of the watershed itself. In meeting after meeting, concerns were raised about springs drying up, about the number of trees in the forest, and about new users and uses in the watershed and downstream. Suggestions were made to restore the watershed, such as reducing the

number of trees by logging or fire, so as to build back the "sponge." In turn, the watershed would be better able to supply the needs of those in its folds. Better information and understanding with respect to water usage will in turn provide better guidance to decision-makers.

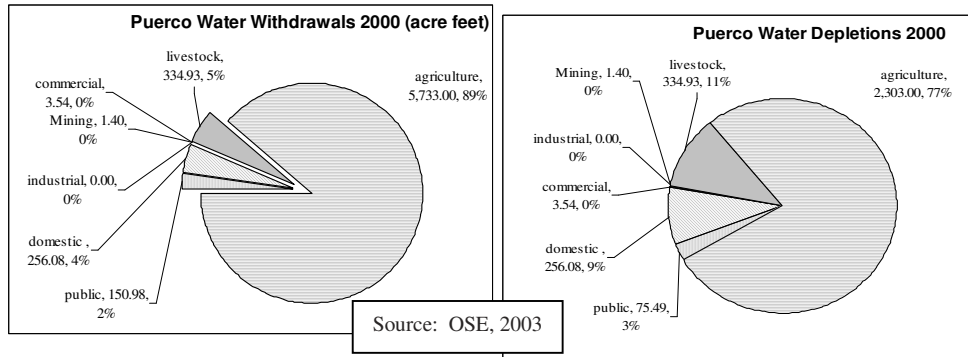
Every five years, the OSE reports water usage in New Mexico. The two pairs of figures on the next page show withdrawals and depletions for each of the watersheds. Water withdrawn is that which is either diverted from its natural path in the surface-water system or pumped from wells. Some of this water may return to either the surface-water or groundwater system, which is why depletions are a more accurate measure. Depletions or Consumptions are that part of a withdrawal that has been evaporated, transpired, or incorporated into crops or products, consumed by people or livestock, or otherwise removed from the water environment.

While the OSE does not report riparian usage, it was reported for the Río Jemez by the Bureau of Reclamation. Unknown is the amount consumed by riparian vegetation in the Río Puerco, though it is likely to be substantial.



Noteworthy is the household water usage, sometimes approximately 40 gallons per capita per day. When compared to the per capita usage in urban areas, upwards of 175 gpcpd, it provides a platform when considering conservation.

Furthermore, no category exists for cultural and spiritual water usage. One goal of the two watersheds is to "support the cultural and spiritual values of water, and the universal need for and importance of water." Other



participants felt strongly that the river had a right to have water. No data is included as to the value of recreation, such as fishing, but certainly in some locales that is an important activity.

### Water Use Arrangements

Found in the main text is a brief discussion highlighting issues of Tribal, Acequias, Treaty of Guadalupe Hidalgo and Adjudications. As noted above, part of the region has been adjudicated. During the process, much education and learning about history and each other took place, bringing the irrigators together. Together, they could see that actions needed to be taken to improve the situation so that downstream irrigators and Pueblo members had water. Not only did they agree in writing to "take steps to improve the efficiency of their diversion and irrigation systems, to work together to seek funding necessary to implement improvements, and to address the need for a storage facility (ies)," they have taken subsequent steps in fulfillment. One tangible result is the joint lobbying effort, receipt of \$1.2 million and a list of projects (*Río Jemez (Abousleman) Indian Water Rights Settlement Proposal For Investigation*, February 12, 2001).

There are numerous water use strictures to be found, often in connection with land use. One perhaps often overlooked entails water quality standards. The designated uses of a given reach of stream has may well influence present activities and regulations.

### Population

Population statistics play an important part in water planning. People use water in a variety of ways, most of which change the water usage from a primal state. Until fairly recently land use in the region depended solely on surface water. Surface water users are sensitive to drought conditions, and must temper usage accordingly.

Except with domestic wells, in order to pump groundwater, since the pumping affects the surface water supply, groundwater users have to obtain existing surface water rights. The rationale is that the surface water will replenish the water being removed. For example, Rio Rancho relies on groundwater for its public water supply and Intel relies on groundwater for its industrial processes. Since all of the surface water has been allocated, surface water rights will have to come from other users and perhaps for elsewhere to meet additional needs. Population growth and new urban uses in these downstream areas then affect the water resource and thus water planning in the subregions.

| Geographic area | 2000 Population | Geographic area       | 2000 Population |
|-----------------|-----------------|-----------------------|-----------------|
| Cuba Village    | 590             | Jemez Pueblo CDP      | 1,953           |
| La Jara CDP     | 209             | Jemez Springs Village | 375             |
| Torreon CDP     | 297             | Ponderosa CDP         | 310             |
|                 |                 | San Ysidro Village    | 238             |
|                 |                 | Santa Ana Pueblo CDP  | 479             |

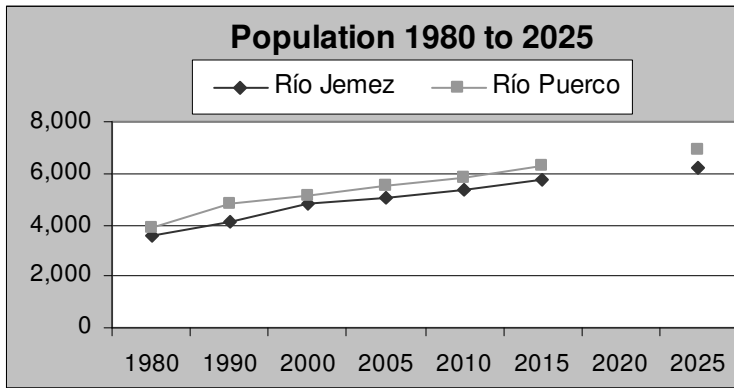
Note: Census designated place (CDP) is a densely settled concentration of population that is not within an incorporated place but is locally identified by a name  
 Source: *MRCOG - 2000 Census Profiles For New Mexico And Areas In Or Near The MRGCOG Region*

Rio Rancho, located just south of where the Río Jemez enters the Río Grande, accounts for much of the sharp growth curve after 1970. According to US Census statistics, in 1980, Rio Rancho accounted for 29% of the County's population, in 1990, it was 51% and in 2000 it grew to 58%. Together, the communities of Bernalillo, Corrales and Rio Rancho accounted for 22% of the County's population in 1970, 46% in 1980, 69% in 1990 and 73% in 2000. In comparison, the population in the subregions is small, but increasing.

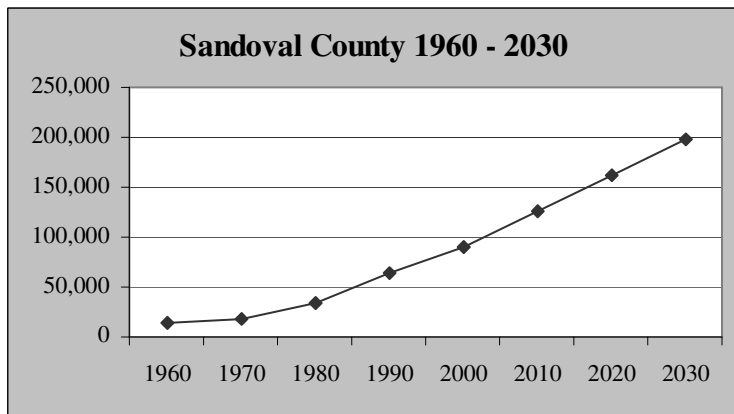
### Quantifying Future Water Demand

A basic question to be answered in regional water planning is "what is the region's projected water demand?" Often that is answered by projecting population trends, recognizing population to be a driving force. Population increases in the region are projected to be 20-25% in the next 25 years, and





Source: US Census Data, 1980, 1990, 2000; DASZ Projections, Mid-Region Council of Governments--January 2003



Source: US Census Data; projections by UNM BBER

for the County as a whole more than 50%. Future demand can be a function of future activities. For example, if paving Highways 550 and 26 brings more tourism to the subregions, the water usage may well increase. Visions of how a region might grow are important considerations in projecting future water usage. Scenarios were created by teams in each watershed envisioning how it might look in 50 years.

Population increases, likely as they are to occur, will increase demands on water. If all of the water is allocated, and demand already exceeds supply, where will that water come from? Conservation measures, while important, may not be enough. A unifying theme for Río Jemez in particular was to be able to plan for the future with at least as much water as currently available. The present lack of water in ditches and wells underscores the fears that already the water budget is overdrawn. If the budget is to be fixed, the prevailing wisdom was that the watershed would need to be restored. Restoring it would not necessarily result in increased stream flow as much as springs would be replenished and could satisfy needs of a growing community. Another consideration for the regions is the unquantified water rights and future water rights of the Pueblos. Although the rights of the non-Indians have been adjudicated with respect to the Río Jemez, there is uncertainty as to what will the final amounts be and how will adjustments be made. Only by being conservative in future planning can this be incorporated.

#### WHY PLAN?

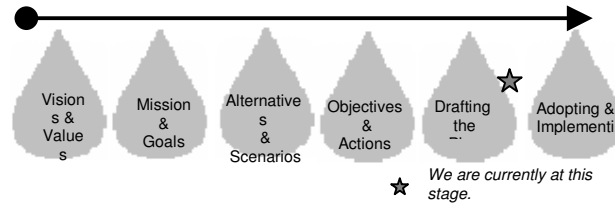
Summing up the above information, often there is not enough water to meet current needs. Watershed deterioration, erosion and forest density affect the quantity and quality of water. At the same time, water usage is increasing and new water uses are seeking water from present users. Water use is constrained by supply, as well as water rights holders and Compact obligations. Future water use is impacted by growth within the subregions as well as downstream. Traditional cultures and values, highly desired by workshop participants, may conflict with newer values and uses. Drought exacerbates the situation further.

The subregional water plan is an effort to counter current trends by planning for the future, together.

#### PUBLIC INVOLVEMENT

Developing the Sub-Regional Water Plan was an open, inclusive and participatory process. More than 175 people contributed time, energy and effort in its creation. All parts of the process encouraged public involvement, input and discourse on the contents of the plan.

## The Planning Process



- Steering Committees made up of diverse constituencies representing a variety interests
- Monthly memos - used to ensure input to plan was broad based and timely
- Workshops - meetings to obtain input from the public.
- Annual Assemblies - Subregions provided updates to the MRG Region.
- Public Opinion Survey - One survey recording regional public opinions on water issues
- Technical Analysis -Expert scientific analysis of some alternative actions.
- Web site and Newspaper Articles - used to inform the public

## OUR VALUES

At the February 2003 Workshop, the participants adopted the Mission and Goals of the Plan, and prioritized Alternatives.

### Mission Statement

*The residents of the Río Puerco y Río Jemez Sub-watersheds promote a sustainable balance between the availability and use of water, promote healthy watersheds, and promote retention of a rural lifestyle to benefit local communities and residents.*

### Non-Prioritized Goals

- Restore and manage the watersheds on public and private land to enhance water production, retention, and quality, to reduce the threat of wildfire, and to preserve natural systems dependent on water.
- Support the cultural and spiritual values of water, and the universal need for and importance of water.

- Ensure treaty, water and acequia rights to preserve and protect local agricultural traditions.
- Retain land use patterns that support and ensure a rural lifestyle and economy.
- Promote the conservation of water.
- Promote education for area residents regarding the connection between land use, water and environmental health, and ways to conserve water. These concepts should be incorporated into the curriculum of area schools.
- Provide for monitoring the implementation of the water plan.

## Alternative Actions

At many public meetings and workshops across the region over the past four years, the general public developed suggestions to manage the regions' water, and prioritized them:

1. Protect Water Rights
2. Manage and Restore our Watersheds
3. Manage Growth and Land Use Together
4. Reduce Water Demand
5. Increase Water Storage Capacity in Rural Areas
6. Manage Drought
7. Reuse Wastewater (Gray)
8. Identify fire-fighting water
9. Prohibit sale of water from region
10. Implement Public Education Program
11. Install Domestic Supply Wells
12. Reduce Water Loss in Acequias
13. Capture Flood Flows
14. Use Surface and Groundwater in Combination
15. Remove Trace Elements From Water to Increase Supply

## SCENARIOS AND VISIONS

Scenarios are descriptions of possible futures. They attempt to identify different assumptions about how current trends will unfold, how critical actions may play out, and what additional factors may come into play. While scenarios do not predict, they may paint pictures of possible futures, and explore the differing outcomes that might result if basic assumptions

are changed. They form an appropriate tool for analyzing how driving forces may influence the future, and in assessing the associated uncertainties. The role of policy choices in shaping the future is highlighted wherever possible. Using the alternative actions, scenarios can be told in many ways. The two most common methods used in scenario analysis are descriptive, written narratives (qualitative scenarios), and tables and figures incorporating numerical data, often generated by sophisticated computer models (quantitative scenarios).

Using the mission, goals and top alternatives, teams created scenarios reflecting an environmental view, an agricultural/ranching view, and a suburban view. The scenarios were then “converged” to become the framework for the subregional plan. The following vision statements were part of the scenarios presented at the May Workshops.

### **Río Jemez Vision Statements**

***Agricultural And Ranching-*** Agriculture and ranching are a part of the whole ecosystem. For us, they are both a part of our livelihood and of our culture. We highly value the rural nature of the region. Our group would like to see that agriculture and ranching continue to function as an integral part of our region. As stewards, we recognize the importance of nurturing the land and husbanding the water.

***Environmental Perspective -*** The environmental vision reflects a shift in attitude from exploitation of the land to stewardship of forests, rangeland and riparian areas. Our children and their children will have the economic and spiritual benefits of ancient forests, free-flowing rivers, living deserts and the abundance of life flourishing in all these areas. The water plan preserves the greatest amount of biological diversity (domestic and wild) while restoring and maintaining a healthy ecosystem. The water plan protects local history and traditions and our land-based economy (including tourism). We envision keeping people on the land by integrating conservation and environmental issues with best management practices in forestry, ranching and agriculture

***Exurban/Suburban/Development/Growth -*** In the next 5-10 years one can imagine a vision in which better-planned regional suburban growth occurs in the Jemez and Nacimiento mountain areas to the north of Albuquerque. This plan would try to encourage areas of higher density where there is the

most water available, so that water rights need not be transferred. North of Rio Rancho, this growth would gently interact with the existing rural pueblo and ranching lifestyles allowing the area to maintain cultural and religious traditions as well as to maintain the environment. Education of newcomers and tourists will help to minimize conflicts. Water use will be coordinated among the various municipal water systems and the pueblos, and conservation practices (industrial, farming, ranching and domestic) will be mandatory.

### **Río Puerco Vision Statements**

***Agriculture & Ranching -*** The vision of the Cuba area’s agricultural community is to perpetuate the area’s historical, cultural, agricultural, economic and ecological values by becoming actively involved in strategic planning of natural resources, implementing adaptive, viable, effective, and sustainable management practices, rehabilitating farm and range lands, and reducing, and planning rotation of, fallow acres within the area. We envision preventing conversion of agricultural land to housing and, despite the increasing demand for water in urban areas, keeping water and agriculture in our area. We envision planning and implementing projects that will improve our lands and help to enhance and sustain the community’s agrarian economy into the next century, serving as a role model to adjacent areas in their agrarian and ecological enhancement efforts, providing support to these efforts.

***Natural Balance Scenario -*** People living within the watershed will understand and live within the natural constraints of climate, fire, soils, and biological communities. Everyone will benefit from a fire-adapted watershed with enhanced water retention and healthier forests, grasslands and watercourses. The landscape will balance wild and cultivated lands that accommodate drought, fire, wildlife, and limited human populations.

***Rural Communities Scenario -*** A Rural Community vision foresees a future for the Río Puerco watershed which reflects its unique prehistoric and historic, natural, cultural, and economic traditions. This vision takes advantage of modern innovation to accommodate a shift to an ethic that upholds respect for land, water, air, and all living things.

### **THE PLAN**

### **Combined Río Puerco and Río Jemez Sub-Regional Scenario -**

Combinations of the alternative actions were then used to build scenarios. From various perspectives, scenarios were developed which included the mission, goals and top three alternatives. The scenarios were presented to the public at workshops in May 2003. From there, they were blended and refined by members of the Steering Committees.

### ***Fifty Year Water Plan For The Río Puerco And Río Jemez Sub-Regions***

Contains the mission, goals, objectives, potential actions, length of time, funding and policies, and benefits.

**Goal:** Restore And Manage The Watersheds On Public And Private Land To Enhance Water Retention And Quality And To Reduce The Threat Of Wildfire, And To Preserve Natural Systems Dependent On Water

- Restore a fire-adapted watershed
- Decrease soil erosion and increase water retention and infiltration
- Reduce, prevent and repair incising of arroyos
- Reduce, prevent, and repair habitat loss along streams, arroyos, and in wetland and riparian areas
- Increase the bio-diversity and production on public and private lands including wild and domestic species
- Provide, consistent and sustainable sources, and adequate distribution of rangeland water
- Maintain agriculture and ranching as part of the whole ecosystem
- Maintain the scenic and ecological conditions which attracted our ancestors and us to the area

**Goal:** Support The Cultural And Spiritual Values Of Water, And The Universal Need For And Importance Of Water

- Realize the spiritual benefits of ancient forests, free-flowing rivers, living deserts and the abundance of life flourishing in all these areas, aside from the economic benefits

**Goal:** Ensure Treaty, Water, And Acequia Rights To Preserve And Protect Local Agricultural Traditions

- Maintain the integrity of the traditional acequia systems that have existed for generations
- Promote agriculture and its beneficial use of water
- Increase efficiency of irrigation ditch systems

- Keep water with the land
- Promote respect for rural, tribal, farming, and ranching lifestyles

**Goal:** Retain Land Use Patterns That Support And Ensure A Rural Lifestyle And Economy

- Base regional growth, planning, and zoning on retaining the health of the entire ecosystem
- Develop a program that systematically fosters cooperation among various sectors of the sub-regions with water as a primary focus
- Create a sustainable economy that bolsters self-sufficiency of the sub-regional communities, and helps prevent loss of the agrarian lifestyle
- Protect agricultural lands from development
- Protect and improve the quality of the domestic supply of surface and ground water
- Provide for increased, consistent and sustainable sources of both domestic and agricultural water

**Goal:** Promote Conservation Of Water

- Develop water-wise residents and communities
- Increase efficiency of water use

**Goal:** Promote Education For Area Residents Regarding The Connection Between Land Use, Water And Environmental Health, And Ways To Conserve Water

- Create water conscious communities and assist future generations in learning about water
- Educate people (farmers and non-farmers) about the importance of land and water stewardship, and farming and ranching

**Goal:** Provide For Monitoring The Implementation Of The Water Plan

- Public participation in the water planning process and water management

### **Public Welfare Statement**

Drafted to provide guidance to the State Engineer in decisions concerning applications for transfer and new appropriations of water rights that affect the subregions as called for in the Regional Water Planning Handbook. The following draft statement has been approved for public review by the Steering Committees.

## Draft Río Jemez Public Welfare Statement

**Introduction** - This public welfare statement is part of our regional water plan to provide guidance to the State Engineer in decisions concerning applications for transfer and new appropriations of water rights that affect the Río Jemez. This public welfare statement will accomplish its purpose if conflicts are reduced in the region, and if decisions reflect the long-term future needs of the region, rather than merely responding to immediate demands. This must not be a static, final statement, but an iterative and evolving declaration which is continuously monitored by the public to ensure that it accurately reflects the welfare of the public, always remembering that there are unknown users and perspectives concerning our water resources that will need to be given a voice in the future.

**General Statement** - Water has many important values to the people in our region which need to be appreciated and fairly balanced to ensure the overall safety, security and well-being for the region. Such values include cultural, spiritual, economic, environmental and hydrologic viability for the region. In times of scarcity, everyone must share the responsibility for living within the shortage. We recognize the current deficit situation and have a duty to balance water use with renewable supply, starting now and in the future. Decisions should be made so as to keep as many options as possible open for future generations.

**Process** - We believe the “public welfare” must be safeguarded by the State Engineer through active management of our limited water resources in the decision-making process used to evaluate new appropriations and transfer of water rights. A strong decision-making process supports “public welfare”. Public welfare is equal in importance to the other two statutory criteria (impairment and conservation). Transfers of water rights must be open to all affected stakeholders and use the best available science. The public will be better served if the process encourages negotiation, not litigation. The process must provide reasonable and timely notice to and allow participation by all parties. The process must avoid automatic (or exempt) transfers or permits made outside of public review. Wet water use must be consistent with the administrative transfer of water rights (Double and triple dipping should be avoided). The evaluation of transfer must consider both the positive and negative impacts of the transfer of water rights on both the area of origin as well as the area receiving the water rights.

### Future use of our water resources consistent with the public welfare -

The “public welfare” requires that our use of the water resources be consistent with three guiding principles:

- #1 - we maintain and improve the health of our region’s water resources;
- #2 - we encourage conservation and discourage waste (e.g., impractical or unreasonable use); and
- #3 - we optimize the efficient use of our limited water resources in the context of restoring watersheds and controlling urban growth.

The state engineer should consider the following competing water demands when evaluating new appropriations and transfers of water rights: including but not limited to health and safety concerns, economic interests, agricultural interests, environmental interests, social and cultural interests, aesthetic interests, recreational interests, and municipal and domestic interests.

- When considering health and safety concerns, the state engineer should strive to maintain and improve the quality of our water resources as a basic human right to safe drinking water.
- When considering economic interests, the state engineer should evaluate both the positive and negative impacts of the transfer of water rights on both the area of origin as well as the area receiving the water rights. Economic concerns should not be a primary consideration.
- When considering agricultural interests, the state engineer should strive to develop and maintain a vibrant and efficient agricultural ecosystem, recognizing that agriculture has economic, ecologic, historic, and cultural values.
- When considering environmental interests, the state engineer should maintain and improve ecosystem biodiversity. The state engineer should also consider instream flows as being essential for the region.
- When considering social & cultural interests, the state engineer should protect water uses which support the diversity of communities, cultures and traditions existing in our region. The promises contained in the Treaty of Guadalupe Hidalgo should be acknowledged and honored.

- When considering aesthetic interests, the state engineer should strive to maintain and improve the agricultural and riparian greenbelts along the flowing waters and ditches in our communities.
- When considering recreational interests, low consumptive recreational uses should be encouraged.
- When considering municipal and domestic needs, the State Engineer should strive to sustain an adequate water supply to meet these needs. The State Engineer should connect water use decisions with local land use decisions.

**Draft Río Puerco Public Welfare Statement**  
*Forthcoming*

**ONGOING ACTIVITIES**

Being added to the plan is a list of potential water projects, as well as examples of efforts underway. The latter provides a clearinghouse where information of successes and failures can be exchanged.

**NEXT STEPS**

**Acceptance and Implementation:** The Sub-Regional Water Plan is advisory, not a directive. The next steps are acceptance of the plan and implementation of the actions needed to meet the mission and goals of the plan. This may include increased public awareness and education, incentives, policies, publicity, ordinances, laws, regulations, taxes, water rights purchases, pricing, and other means of managing the consumptive use of water within the subregions. Additional studies and projects that could enhance water supplies may also be required.

**Some suggestions:**

- Improve Our Water Picture - data is either missing or not complete, making it difficult to answer regional water planning's five questions. In order to better protect our water for future users, a more complete and accurate picture needs to be produced.

- Establish Benchmarks - in order to monitor and perhaps adjust the plan in the future, better data is also needed to observe changes.
- Continue the Steering Committees, expanding them to include local government officials, domestic water associations, tribal members, acequia parciantes, environmental organizations, land use managers (especially Forest Service and Bureau of Land Management), teachers and students, and residents from all walks of life.
- Create subcommittees to carry out many of the tasks of the plan.
- Most of all, celebrate!

The plan is not static. As time goes on, the objectives and actions may change to fit the circumstances. Rather than being a mandate, the plan is the concept that a regional water plan is a manual. It can lay out a long-term process towards finding answers and improving solutions, while establishing a vision and context for the entire watershed. And, of course, each area, such as La Jara or Jemez Springs, may want to have its own water plan. Together, hopefully, they will ensure that the goals of the subregional water plan are met. The plan will not take away water rights, nor absolutely protect them. The public welfare statement and the goals will give the State Engineer guidance as to the community's desires.

**REFERENCES**

For more detailed information on water data see the following reports:

- Brown John R., Nancy Carrillo and Hank Jenkins-Smith, "*Attitudes and Preferences of Residents of the Middle Rio Grande Water Planning Region Regarding Water Issues - Summary Report to the Action Committee of the Middle Rio Grande Water Assembly and the Middle Rio Grande Council of Governments,*" UNM Institute for Public Policy, University of New Mexico, June 2000, [http://www.unm.edu/~instpp/e\\_hold/MRG\\_Water\\_Issues.pdf](http://www.unm.edu/~instpp/e_hold/MRG_Water_Issues.pdf).
- *Framework For Public Input To A State Water Plan*; Prepared By The New Mexico Office Of The State Engineer And The Interstate Stream Commission; December 2002

*(note: when printed, this fit on 4 legal size sheets).*

Rio Puerco y Rio Jemez Steering Committee  
DECEMBER MEETING  
Monday, December 8 at 6:30 pm.  
San Ysidro

**Tentative Agenda**

A. Public Welfare Statement

(please review material beforehand and bring your copies)

- Review & discuss the comments made to the draft Rio Jemez Public Welfare Statement
- Review & discuss Ernie's and Marion's thoughts, and finalize one statement, or one for each watershed, for the Plan.

B. Comments to Plan

- All comments received will be included in the document.
- Review and discuss those comments which may require a substantive change.

C. Subcommittees & Other Tasks

- (1) Discuss endorsement process & designate a coordinator(s) to follow up on them
- (2) Form presentation teams, if need be
- (3) Water Projects list and Project Catalogue - designate a coordinator(s) to follow up on this task
- (4) Form Education, etc. subcommittees
- (5) Interim coordinator or ?
  - Compile a list of the ideas as to what actions to take to attain which goals
  - Propose a calendar
  - Create a list of tasks that should be performed
  - Produce a list of suggestions as to how those might be accomplished
- (6) Submit proposal to fund a watershed committee?

◇◇◇

Suggested criteria for changing the plan should be:

1. To delete an action item it has to be shown that that item does not uphold the objective under which it is placed. The same would hold for an Objective, that it doesn't uphold the Goal under which it is placed.
2. To add an objective or action item, it must be shown to uphold the category under which it is placed. If it conflicts with an existing action item then possibly the conflict needs to be noted, resolved, discussed.
3. Other wording, that broadens or generalizes an idea already in the plan may be substituted for the existing words.
4. Use the "Benefits" column to define the desired outcome expected by or from the item, or the meaning of an item.

Remember that the Plan is a culmination of input from many and varied publics!





**Río Puerco Preliminary List of Endorsement Entities  
and Contact Information**

Village of Cuba

Ethel Maharg, Mayor  
Names of Trustees  
Lupe Aragon <lupe@nmrwa.org>  
address  
\*Cuba Water System  
Contact

Santa Fe Forest Service

Cuba - 289-3264  
Steve Romero <sfromero@fs.fed.us>  
William Eaton <weaton01@fs.fed.us>  
address:

BLM

Contact  
\*Rio Puerco Management Committee  
Steve Fischer <Steve\_Fischer@nm.blm.gov>  
"Mike Chavez" <mdchavez@nm.net>  
435 Montano NE  
Albuquerque, NM 87107

Regina MDWCA

Don Buttry  
Regina NM 87046  
289-3544 h  
debuttry@cubawebnet.com

La Jara Water Users Association

Jack Leaf  
Address

Acequias - check names and addresses

Acequia de La Jara  
David Montoya  
2813 Moya Rd NW  
Albuquerque, NM 87104

Los Pinos Community  
Marion Woolf  
PO Box 382  
Cuba, NM 87013

Acequia de Los Utes  
Dr. Richard Kozoll  
PO Box 914  
Cuba, NM 87013

Acequia Unidas  
Ken Eichwald  
PO Box 1317  
Cuba, NM 87013

Archibeque Ditch  
Ken Eichwald  
PO Box 1317  
Cuba, NM 87013

Garcia-Lucero  
Carlota Eichwald  
PO Box 672  
Cuba, NM 87013

Gonzalez-Gurule  
Jeffrey Gurule  
PO Box 413  
Cuba, NM 87013

Lagunitas Ditch  
Leo Sandoval

\_\_\_\_\_  
Cuba, NM 87013

Nacimiento Ditch  
Mark Martinez  
PO Box 1038  
Cuba, NM 87013

Nacimiento Ditch Mayordomo  
Carlo Atencio  
PO Box \_\_\_\_  
Cuba, NM 87013

San Jose Ditch  
Aparcio Gurule  
PO Box 416  
Cuba, NM 87013

San Luis Acequia  
Annie P Sandoval  
PO Box 306  
Bernalillo, NM 87004

Vallecitos Ditch  
Ray Sisneros  
Gen Del  
Cuba, NM 87013

Navajo

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"Torreon Chapter" <naneelzhiin@yahoo.com>,

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**Ojo Encino Chapter**  
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President Chee Smith, Jr.  
**Whitehorse Lake Chapter**  
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Cuba, NM 87013  
Tel: (505) 655-5430  
Fax: (505) 655-5432

President Tony Secatero  
**To'hajilee (Canoncito) Chapter**  
PO Box 3398  
Canoncito, NM 87026  
Tel: (505) 836-4221  
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Michael Benson  
<michaelbenson\_navajonation@yahoo.com>

Mid-Region Council of Governments  
Michael R. Trujillo  
317 Commercial NE, Albuquerque, NM 87102  
Phone: 505-247-1750, Fax: 505-247-1753

Rural Water Association  
Matthew Holmes <matt@nmrwa.org>  
Executive Director  
Lupe Aragon <lupe@nmrwa.org>  
Circuit Rider

Bureau of Indian Affairs  
Southern Pueblos Agency  
Trust Resources section,  
1000 Indian School Road  
Albuquerque, New Mexico

USDA-NRCS  
Danny Branch  
PO Box 250  
Cuba, New Mexico  
Linda Scheffe <linda.scheffe@nm.usda.gov>

USDA-Farm Service Agency  
6200 Jefferson NE  
Albuquerque, NM 87109

#### Others

US Fish & Wildlife Service  
2105 Osuna NE  
Albuquerque, NM 87113

NM Department of Game and Fish  
P.O. Box 25112  
Santa Fe, NM 87504

Corp of Engineers  
4101 Jefferson NE  
Albuquerque, NM 87109

Forest Guardians  
1411 Second St  
Santa Fe, NM 87505

Valles Caldera  
Name  
Address

Jemez Valley School District  
Name  
Address

Cuba School District  
Name  
Address

## 2. Data Discrepancies

October 2003 - Discussed with participants at Endorsement Workshops and Open Houses. Also sent to MRCOG. Dave Abrahms provided data to address some of the population issues.

Uses and users may be misreported, creating an incorrect picture of who is using what water today. Applying such uses to future demands may distort the picture further. With that in mind, the following discrepancies discovered to date are set forth with the goal of obtaining agreement on the usages.

### I. Water Use

Data Sets- An attempt has been made to collect and set out data from various sources. Some of it may seem contradictory, but may well represent collection for different purposes or from different points. Every five years, the New Mexico Office of the State Engineer (NMOSE) publishes water uses for nine categories. These include irrigated agriculture, livestock, public supplied water, reservoir evaporation and the self-supplied categories of domestic, commercial, industrial, mining, and power. Shomaker notes that for the years 1975, 1980, and 1985, withdrawal and consumptive use data for self-supplied categories was available only by county. However, the NMOSE meter record database for 1990 and 1995 included the addresses of the individual water users (not including domestic), allowing withdrawals to be subdivided into the appropriate subregions (see Appendix in Shomaker and further information in Appendix 12.3). Use was made of the NMOSE work sheets for 2000 usage. The data from the NMOSE does not include riparian usage, nor open water evaporation unless from a reservoir. USGS reports water usage for the Río Puerco and Río Jemez for 1990. Bureau of Reclamation includes a portion of the Río Jemez in the ET Toolbox. While every attempt has been made to ensure accuracy, better data will certainly assist future planners.

#### A. irrigated acreage

##### 1. Río Jemez

- a. In 1987, 1,233 acres were reported to be served by *acequias*, or community irrigation ditches. Applying a consumptive use of 2 acre feet per acre, the estimated consumption equaled 2,447 acre feet. (Shomaker, 61, and Appendix 7, citing Saavedra, 1987).
- b. In 1988, Shomaker reports irrigable acreage of Jemez Pueblo to be 1,828 acres, of which 301 were irrigated.
- c. In 1995, referring to NMOSE data, irrigated agriculture accounted for a withdrawal of 4,610 acre-feet. (Shomaker 85)
- d. In 2000, 1,655 acres were irrigated, of which 1,585 utilized surface water. (Wilson, 2003)
- e. In 2000, agriculture withdrew 4,566 acre feet and depleted 1,821.
- f. In a recent proposal by the Pueblo of Jemez, it was stated that "the land use consists of 2,100 acres irrigated cropland, 6,500 acres grazing land and 21,900 acres of mountain mixed conifer." (Environmental Assessment Of Environmental Quality Incentives Program For Pueblo Of Jemez Tribal Trust Lands GPA 2002)
- g. Future Water Use Projection (MRCOG 2000 land-use map)
  - \* Irrigated Agriculture = 586 acres
  - \* Adjusted Withdrawal Coeff. (gpa/d)\* = 6,709
  - \* Calculated Withdrawal in 2000 (ac-ft/year) = 4,404
  - \* Adjusted Depletion Coeff. (gpa/d) = 2,227
  - \* Existing Depletions (ac-ft/year) = 1,462

"Shomaker reported acreages of 1,223 ...for irrigated agriculture in the Río Jemez ... subregion. The discrepancy could be due to errors in the Middle Río Grande Council of Government's existing land-use map, or it could be that irrigated acreage in the Río

Jemez and Río Puerco subregions has decreased since the State Engineer collected data for the report it published in 1987."

h. *Abousleman* Adjudication

| Ditch               | acres  | Ditch                     | acres           |
|---------------------|--------|---------------------------|-----------------|
| Ponderosa Community | 47.41  | Jemez Springs             | 8.95            |
| San Ysidro          | 507.84 | South Upper               | 45.89           |
| Nestor Padilla      | 1.78   | West                      | 20.85           |
| Cañon Community     | 201.48 | Upper West                | 6.92            |
| Pueblo              | 17     | Upper East                | 1.97            |
| West Main#          | 10.57  | La Cueva                  | 53.94           |
| Ponderosa Community | 252.18 | George E. Fenton          | 5.45            |
| West Lateral        | 7.41   | Fenton                    | 6.5             |
| East Lateral        | 11.41  | Pueblo                    | 7.62            |
| West Side           | 9.65   | Nestor Padilla irrigation | 9.43            |
|                     |        |                           | <b>1,234.25</b> |

Plus Pueblo Acres = **3,535.40**

2. Río Puerco

- a. In 1987, 3,267 acres were reported to be served by *acequias*. Applying a consumptive use of 2 acre feet per acre, the estimated consumption equaled 6,533 acre feet. (Shomaker, 61, and Appendix 7, citing Saavedra, 1987).

| Ditch                      | Acres Irrigated | Consumptive Use, acre feet |
|----------------------------|-----------------|----------------------------|
| Nacimiento Community Ditch | 713.50          | 1,427                      |
| Acequia de La Jara         | 1,400           | 2,800                      |
| Los Pinos Community        | 397             | 794                        |
| Acequia de Los Utes        | 40              | 80                         |
| Garcia-Lucero              | 400             | 800                        |
| Lagunitas Ditch            | 92              | 184                        |
| Vallecitos Ditch           | 117             | 234                        |
| Río Puerco                 | 100             | 200                        |
| Ortiz                      | 7               | 14                         |
| <b>Totals</b>              | <b>3,266.50</b> | <b>6,533</b>               |

- b. In 1985, the irrigable acreage is reported to be 2,150, with 1,616 irrigated (Wilson cited by Shomaker).
- c. In 1990, irrigable acreage is reported to be 2,150, with 1,590 acres irrigated (Wilson, 1992)
- d. 1995 - Irrigated agriculture accounted for a withdrawal of 7,580 acre-feet. (Shomaker 85)
- e. In 2000, 2,040 acres were reported as irrigated. (Wilson, 2003)
- f. livestock 548.87, and agriculture 6,384.81 of which 3,013.18 was consumed (Wilson)
- g. Future Water Use Projection (MRCOG 2000 land-use map)
- \* Irrigated Agriculture = 553 acres
  - \* Adjusted Withdrawal Coeff. (gpa/d)\* = 6,709
  - \* Calculated Withdrawal in 2000 (ac-ft/year) = 4,156
  - \* Adjusted Depletion Coeff. (gpa/d) = 2,227
  - \* Existing Depletions (ac-ft/year) = 1,379

"Shomaker reported acreages of 3,267...for irrigated agriculture in the Río Puerco ... subregion. The discrepancy could be due to errors in the Middle Río Grande Council of Government's existing land-use map, or it could be that irrigated acreage in the Río Jemez and Río Puerco subregions has decreased since the State Engineer collected data for the report it published in 1987."

h. In 2000, 2,040 acres were reported as irrigated. (Wilson, 2003)

i. *Abousleman* Adjudication

j.

Nacimiento Community Ditch Association

Domingo Vigil 46.61

Nerio Montoya 14.68

Francisco Chavez # 6 195.58

Gabriel Montoya # 7 47.97

Nacimiento 247.19

Ballejos # 4 9.86

Copper City 130.72

Madalena Atencio # 2 23.01

**715.62**

k. La Jara claims to irrigate 1,610 acres (La Jara Geographical Priority Area Application, 2002).

## B. Riparian usage

### 1. Río Jemez

#### Future Water Use Projection - 2000 Usage

| Category                  | Area in Río Jemez in 2000 (acres) | Adjusted Withdrawal Coeff. (gpa/d)* | Calculated Withdrawal in 2000 (ac-ft/year) | Adjusted Depletion Coeff. (gpa/d) | Existing Depletions (ac-ft/year) |
|---------------------------|-----------------------------------|-------------------------------------|--|-----------------------------------|----------------------------------|
| Natural Drainage/Riparian | 7,012                             | 3,109                               | 24,419                                     | 3,109                             | 24,419                           |

#### Río Jemez Riparian Acreage & Consumptive Use, and Open Water Acreage

|  | acres    | acre feet |
|--|----------|-----------|
| Average riparian vegetation consumptive use in Río Jemez (1935 - 1994) <sup>1</sup>        |          | 11,500    |
| Río Jemez River Riparian Acreage & Consumptive Use (Average from 1985 - 1998) <sup>2</sup> | 1,971    | 9,624     |
| Open Water acreage <sup>3</sup>  | 1,260.10 |           |
| Riparian acreage (Includes Bosque) <sup>3</sup>  | 710.7    |           |
| Total URGWOM Water Use in 2000 <sup>3</sup>  |          | 8,068.40  |

2000 Jemez Reservoir evaporation amounted to 5,863 acre feet (Wilson)

*Note: Presumably the recreational and entertainment attractions at Pueblo of Santa Ana -- including the Santa Ana Star Casino, the Prairie Star Restaurant, two golf courses, 8 lakes, a 22-field soccer complex, and the Tamaya Hyatt resort-- utilize water from the Río Jemez system, but the use and impact are not mentioned. Likewise, results from impact on the Río Jemez from groundwater pumping by Rio Rancho is not readily available.*

### 2. Río Puerco

#### Future Water Use Projection - 2000 Usage

| Category | Area in Río Puerco in | Adjusted Withdrawal | Calculated Withdrawal in | Adjusted Depletion | Existing Depletions |
|----------|-----------------------|---------------------|--------------------------|--------------------|---------------------|
|----------|-----------------------|---------------------|--------------------------|--------------------|---------------------|

|                           | 2000 (acres) | Coeff. (gpa/d) | 2000 (ac-ft/year) | Coeff. (gpa/d) | (ac-ft/year) |
|---------------------------|--------------|----------------|-------------------|----------------|--------------|
| Natural Drainage/Riparian | 125          | 3,109          | 435               | 3,109          | 435          |

### C. Public Water Supply

#### 1. Río Jemez

- a. In 1995, referring to NMOSE data, Shomaker reported that public water suppliers withdrew about 126 acre-feet in the Río Jemez subregion. (85)
- b. In 2000, withdrawals for public and domestic water supplied equaled 466 acre feet, with 341 acre feet considered depleted.
- c. Wilson 2000 Population - Cañon (420), Jemez Pueblo (3,000), Ponderosa MDWCA (300), San Ysidro (300) and Zia Pueblo (750). [Note: *There seem to be several other Mutual Domestics not mentioned in Wilson's data.* ]

#### 2. Río Puerco

- a. In 1995, referring to NMOSE data, Shomaker reported that public water suppliers withdrew about 231 acre-feet in the Río Puerco subregion.
- b. In 2000, withdrawals for public and domestic water supplied equaled 470 acre feet.

D. how to best include cultural and spiritual water usage?

## II. Population

Most data sets came from BBER and 2000 Census, unless otherwise noted

#### 1. Río Jemez

Population - Cañon (420), Jemez Pueblo (3,000), Ponderosa MDWCA (300), San Ysidro (300) and Zia Pueblo (750).

|                       |              |
|-----------------------|--------------|
| Jemez Pueblo CDP      | 1,953        |
| Jemez Springs village | 375          |
| Ponderosa CDP         | 310          |
| San Ysidro village    | 238          |
| Santa Ana Pueblo CDP  | 479          |
| <b>Total</b>          | <b>3,355</b> |

|  |              |              |
|--|--------------|--------------|
| Jemez Springs, San Ysidro & Zia Pueblo | Tract 101.01 | 2,847        |
| Jemez Pueblo                           | Tract 101.02 | 1,958        |
| Santa Ana**                            | Tract 103.01 | 227          |
| <b>Total</b>                           |              | <b>5,032</b> |

Summary of Public Water Use in Río Jemez, 2000 (Wilson)

| USER                      | POP          |
|---------------------------|--------------|
| Cañon MDWUA               | 250          |
| Jemez Springs Water Co-Op | 375          |
| Ponderosa MDWCA           | 350          |
| San Ysidro                | 240          |
| <b>Total</b>              | <b>1,215</b> |

## 2. Río Puerco

|              |              |
|--------------|--------------|
| Cuba village | 590          |
| La Jara CDP  | 209          |
| Torreon CDP  | 297          |
| <b>Total</b> | <b>1,096</b> |

|                        |            |              |
|------------------------|------------|--------------|
| Includes Torreon       | Tract 9433 | 2,958        |
| Cuba, La Jara & Regina | Tract 102  | 2,184        |
| <b>Total</b>           |            | <b>5,142</b> |

### Summary of Public Water Use in Río Puerco, 2000 (Wilson)

|                   | <b>POP</b>   |
|-------------------|--------------|
| Cuba Water System | 765          |
| La Jara           | 350          |
| Regina MDWCA      | 500          |
| <b>Totals</b>     | <b>1,615</b> |

Pueblo of Jemez - "The village of Jemez Pueblo is home to nearly 3,000 Jemez Pueblo members." (Environmental Assessment Of Environmental Quality Incentives Program For Pueblo Of Jemez Tribal Trust Lands GPA 2002.) The 2000 census showed 1,953.

To counter some of that discrepancy, check census records with other information would be useful. For example, a good source of information would be the Domestic Water Association records of hookups - thus including Cañon and Ponderosa's 600 people. Another source would be to cross check those figures with the Jemez Valley Electric Co-op hook-ups. Additional sources of data is necessary to provide an accurate picture of water usage today and trends for tomorrow

As noted above, some of these discrepancies were cleared by during a subsequent work session with Dave Abrahms of MRCOG. The phenomena of second homes may well increase and should be another factor in the projection of future water needs.

### 3. Comments on Plan

#### Comments From Openhouses

RIO JEMEZ and RIO PUERCO SUBREGIONAL WATER PLANNING  
11/15/03

##### Public Welfare

1. RP- Public Welfare in New Mexico should include a realization that the preservation of this unique state--- and our watershed, especially--- requires us to drop the American motto: “if it makes money, it’s good”. We can be made into Owens Valley if we don’t actually protect the cultures and character of our area. Developers need to be held at bay with legislation that recognizes preservation of customs, cultures, beliefs and practices takes precedent.

This would require the state to take the point of view that maintaining northern NM as a “traditional national treasurer”— of more value as it is, than as a site for greater economic development.

2. RP- Public welfare should be just that and not for the benefit only of those who profit from the labor of New Mexicans.

3. RJ- It seems as though the Principle #2 (*in the public welfare statement*) is not needed since it is already reflected in the authority of the St. Eng. to deny an application. I would delete #2, and split #3, moving “control of urban growth”, and developing another principle that reflects the importance of the use of water to enhance a rural agricultural economy as opposed to urban growth. Since Ag land is worth less in taxes than industrial/residential/subdivision land that it could be argued in the future that land uses that bring in higher tax revenues are more beneficial than open space/wildlife/and agriculture.

##### Mission & Goals:

4. RP- Education should come from those who use the water and the land after all they are the ones who have managed it.

##### Restore Watershed

5. RP- Water demand must include “demand” by aquifer- adequate recharge for supply sources (rivers & acequias & springs). Reducing water loss in acequias must be balanced against recharge needs (?).

6. RP- \* Apply prescribed fire judiciously, as needed  
\* Educate public about fire prevention/management in forested areas  
\* Use traditional water retention structures such as brush dams (effective, enduring, ultimately biodegradable).

##### Spiritual/Education:

7. RP- Priority of the dependence of water goes to the human being first. No animal is to take precedence over the lives of human beings.

8. RP- Humans must develop humanity & recognize interdependence of all beings. A truly healthy human community lives in a respectful harmony with non-human life as far as possible. (My spiritual belief.)

9. RP- Develop Job Corps Center (uniquely tailored to this area) as Natural Resources Education & Management Training Center.

10. RP- Develop legislation (requests to our reps) requiring new comers to adapt to the desert way of life (several native & colonial cultures did that!) and not to try to adapt the desert & mountains to a “water-rich” way of life.

11. RP- The goal assumes that the area residents are dumb or stupid or unable to manage water that has been entrusted to them for centuries. If any education comes it should be from those who use the water. It is offensive to me to be told that you have to educate these ignorant people.

12. RP- The original Rio Puerco basin was much healthier Re: plant life, water available year round, & bountiful animal species BEFORE European immigration to the area, misunderstanding, hence misusing the natural resources. Increased population & a much greater level of consumption (& expectation) of resources has caused the damage we now see. No one has been totally wise and totally knowledgeable.



“Ecology” is a very new “science.” We have much to learn & many attitudes & habits of lifestyle to reform!

#### Agricultural Traditions/Water Conservation:

13. RP- “Quantify” water usage isn’t acceptable- this mountain watershed needs recharge and quantifying can lead to limitation for local use. NO parciente gets the acre feet actually allocated- EVER! Right now the recharge barely keeps springs & mountain streams flowing. Rather than quantify in the watershed- QUANTIFY in the urban areas! Stamp out non-local/native practices like huge green lawns, golf courses, swimming pools in every yard. Make it clear to downstream population that this is the DESERT!!!

14. RP- The ditches have worked well for centuries without lining or piping. To do so disturbs the flow of the water from the mountain. It also makes it too convenient for the cities to turn on the faucet to our nicely piped area. No thanks!!

15. RP- Laser level fields. At whose expense? Again they have worked well the way they are. Maybe we need to have a conversation with God as to why He made the land this way.

16. RP- Meter- Why? If we had excess water up here- MAYBE. But this is a precursor to taking water for downstream urban use which is EXTRAVAGANT. Why must people who have used/preserved/adapted to desert mountains for over 400 years or 1500 years in pueblos, adjust to provide non-conscious water-users with excessive water? Let us continue o[u]r practices and let down-stream users adjust their life styles.

17. RP- Operating efficiency must include adequate recharge.

18. RJ- What agency may provide assessment and info for individual use and construction of erosion and soil conservation structures. Funding available? How/who to contact. Seed, trees, plantings available?

19. RJ- Subsidies for gutters and water tanks to promote rainwater harvesting.

20. RJ- Provide info Re: plans and sources for greywater utilization systems.

21. Offer data on graywater recycling, and group rates for materials, installation, etc.

#### Rural Land Use Patterns:

20. RP- What does it mean to use creative planning that does not require commuting?

21. RP- I agree that we need to manage growth by putting geographical or numerical limits on population. I agree with all the goals & objectives & feel that these are comprehensive & balanced.

22. RP- “Local” control sounds good, but what about “locals” who just want to sell their land to the highest bidder, regardless of what happens to the land & water after “they get theirs”? There are “locals” FOR ecological sustainability + rural lifestyle preservation + “locals” who either don’t comprehend this or don’t care. Ironically, sometimes a less personally “interested” (as in self-seeking(?)) party can take a less self-serving, more “common good” perspective on environmental care.

23. RP- Wells per section should be limited to prevent widespread developments, but the law must allow family lands to be developed for family members as needed. Otherwise the wealthy drive out the traditional inhabitants. Not in this watershed!

24. RP- We cannot tell a land owner that he is limited concerning his wells. Our family owns 80+ acres with 7 heirs that could potentially build on that land. It breaks down to 13 acres per person. Which of the 7 get no well?

25. RP- Both land & water are LIMITED resources. Population on the land is the joker in the deck. Over population = overuse & depletion of available natural resources. What’s to be done?

#### Monitoring:

24. RP- Some equity must be established in water planning that gives priority to holders of ancient & prior water rights- not only to provide the ability to hold onto water in the face of economic pressure, but to listen to traditional practices that have kept water in this dry/drought cycled area. So there’s public and public- give precedent to age. Avoid the “young Turk” cycle- listen to what works and practice that for a time before “improvements” are implemented which turn out to be counter-productive.

25. RP- Who will do the monitoring? It needs to be local.

Miscellaneous:

29. RJ - Items of Interest [Steve Neff 235-5064, s\_neff@sulphurcanyon.com]

- (A) Spray or Reduce Non Native Growth
- (B) Grey Water
- (C) Pipe & sprinkler systems
- (D) Meter head gates of ditch users
- (E) Drought Season Based Water Distribution
- (F) \$ For Application (Not Just Study)

30. RJ- How do we get more people involved? We are the choir and we know the song already.

31. RJ- Plan looks good- especially steps toward limiting water rights transfers from rural to cities.

32. RJ- I think the plan has made great strides since I last looked at it. I think it is important & of value to us. I object to the apparent endorsement of the endangered species act at page 23. The act has become, in my opinion, the way by which many important public policy matters are drug out of the public square & into courtrooms for decision.

On Wed. night, the Jemez Springs City Council did not pass the proposed resolution in support of the plan based on the ref. to the E.P.A. This portion of the plan is, I believe, contrary to the opinion of the majority of our residents. I do not believe endangered insects, mice or minnows should be given such prominence in water issues, & I believe the plan would be much better & more representative of the public in the Jemez if we rejected the present interp. of the act & pressed for a change to moderate the scope of the act. (The city council & mayor were unanimous in their concern to not be seen as endorsing the act in its present state. [Dennis Smith])

*(Note: Page 23 of Draft -> the reference to Endangered Species was in the vision statement of the Rio Jemez Environmental Group and did not make it to the Combined Scenario.)*

33. The most interesting statistic to me was on page 6 of the synopsis of the draft plan (under pie graphs showing withdrawals & depletions) concerning household water usage. This short paragraph declares that urban households use 4 times more water on average than we suburban users do. (175 GPCPD vs 40 GPCPD) I would like to believe that living closer to the land makes us more aware.

The other issue I feel strongly about is that we have to link/limit new development (Rio Rancho, et al, for example) to available water supplies. We cannot continue to pump more & more water from the aquifer for them, if our springs & wells, & rivers are going dry.

**Jack Leaf**  
**La Jara Mutual Domestic**  
**11-7-03, one-hour**

Not terribly impressed by document

Some of the data seemed out of date & flawed

Repeated references to keeping traditional agriculture at all costs

References to controlled burns, what about controlled logging  
benefits future fire control

If expect to benefit -- doing it already

Changes to meet demand

USDA rainfall data

Member-owned coop

Hookups - 132 meters

1/5th are part-timers  
from surface water

17-20,000 gallons per day on weekends

9,800 = lowest ever seen

bylaws - some of most expensive water

cut usage that is metered by 60%

supplies are not sufficient for large numbers

stepped rate schedule in

stock tank is not to be filled

trace elements

Maintaining respect to their spiritual beliefs

La Jara community center

- Generic clause basically says "part of the long-term plan is for all the public water systems to improve and upgrade any and all facilities as required by changes in demand."
- In most long-term propositions there is spelled out a structure how to change it as conditions change
- Need clear and explicit instructions on how to amend it for future situations
- Mechanisms need to be in place

Population is a geometric progression, not going to be agrarian

Diminish focus on traditional - negative

Marecella, wife

## Comments Received From Jack Leaf

### COMMENTS RECEIVED FROM JACK LEAF

After reading the Regional Water Plan draft that you so kindly supplied, I find myself left with several questions and concerns.

Topmost of the questions must be the reasoning behind the Plan's cynosure being on preservation of tradition and spirituality in light of projections (within the draft) that Sandoval County's population will more than double within the next thirty years. It would seem that this change, along with the changes in demographics and economic development that it will in all likelihood entail, will require some shift in emphasis from traditionality to developing workable scenarios for both the present and the future.

Among the concerns, I must question the validity of some of the data upon which this draft appears to be based. Some appears merely to be noticeably out of date, while other appears to be less than accurate. An example of the former would be the precipitation levels of Regina; of the latter, Puerco withdrawals equaling depletion for both domestic and livestock in 2000. This would indicate no comprehension of sewage and septic systems (maximum water loss estimated at 50% or less) or the biological functioning of livestock, including urination, respiration and defecation.

Although this document made passing reference to the hydrological cycle, it appears the authors either do not or do not want to understand it. Besides what has been mentioned above, "lining" the acequias will be locally disruptive to that natural cycle. Obviously, erosion can have a similar impact, which can be most cost effectively controlled in many instances simply by decelerating the flow rate. Erosion can also be limited with selected vegetation. (Contact USDA on this; they've been at it for many decades and much of their research is excellent.)

As for domestic water, much of what is proposed is already mandated by state and/or federal laws. Of what remains, some is not feasible for New Mexico's many small water systems, such as increasing tankage and providing fire protection supplies, which require (minimally) six-inch lines. Without adequate usage, either results in stagnation and, ultimately, a contaminated water supply.

Lastly, I suspect that for New Mexico to adhere to "traditional agricultural practices" at all cost, as this draft seems to advocate, would work about as well here as it has in Ethiopia.

Thank you.

Sincerely,

Jack Leaf  
PO Box 9  
La Jara, NM 87027  
(505) 289-0189

## **Additional comments from Jack Leaf, following November 15 Open House:**

This is in response to requested comments on draft 50-year regional water plan. To avoid redundancy, the following all refer to that draft.

The projection that Sandoval County population will more than double by 2030 implies that within the 50-year scope of the plan it could well quadruple. Conservation alone will be wholly inadequate to meet such an increase in water needs.

Currently, regional water needs are met by tapping only to parts of the hydrologic cycle; local surface and ground waters. Both are already under considerable stress due to current demands, and this stress and ensuing depletion will increase proportionally with population growth. It is imperative that water sourcing be redirected to other parts of the hydrologic cycle to alleviate this stress and lessen the imbalance in the cycle that current practices have created.

With existing technologies, seawater desalination and distribution may well be the best option for meeting long-term increases in potable water demand. This will admittedly involve large investment in infrastructure, but these costs pale in comparison to the costs of doing without water. An aggressive program of cloud seeding has the potential to play a key role in meeting agricultural demands, further reducing stress on currently used sources and ultimately helping to restore lost balance in the regional and local hydrologic cycles. It is highly probable that over the life of the plan, these technologies will both evolve further and be augmented by new developments. The final plan must be flexible enough to allow incorporation of new innovations or it will, over its 50-year life, prove to be at least crippling.

“Traditional agriculture” is far from efficient in many ways including water utilization. At the same time, it is an important part of the region’s heritage. Aggressive cooperative efforts involving all the region’s land grant universities could lead to major improvements in both efficiency (including water use) and profitability while helping to meet the increasing demands of an increasing population. Creation of “museum ranches” would preserve the important agricultural legacy and tradition of the region.

Watershed protection must involve more than controlled burns, which are both costly and somewhat risky. An alternative worthy of consideration is logging. Current practices are ecologically friendly, have a substantial economic impact, provide erosion control advantages over burns, and improve firefighting access.

John D. Leaf, Operator (006610)  
La Jara Water Users’ Association  
PO Box 9  
La Jara, NM 87027  
(505) 289-8422

## **Comments Received From Don Buttry**

### **COMMENTS RECEIVED FROM DON BUTTRY**

After reviewing the draft plan, I noticed that the one thing mentioned and not addressed was that our “Water Demand exceeds our Supply”. I do believe that it would be in order for the plan to include some provision for additional supply. At the present time, we are tapping the hydrological cycle in two places, Surface Water and Ground Water. Two procedures come to mind that might be considered. 1) We could add more supply to this area by installing Desalination Plants and pipe water to the high use areas and 2) after we get the watersheds restored, we could implement a Cloud Seeding program.

We must do something to offset the projected increase in population, which in turn will increase the Demand for water. True, Rio Puerco and Rio Jemez watershed areas may be able to survive on their own by cleaning and restoring the watersheds and promoting conservation plans, but the larger use areas in the Middle Rio Grande cannot continue to withdraw water at the current rates without depleting the supply. If they do continue at this rate, it will start to affect the entire state. They will become desperate for water. We will see wells drying up and smaller communities will then be running out of water. There will be an increased demand for any water available at any price. Do we want to wait until this type of a crisis becomes a reality or do we plan for the future by starting to add some of the new sources now?

Yes, it will be expensive, but please note that life demands water and life is expensive. We could start some research on this new technology now and avoid the crisis that is sure to become a reality in the future. Please remember, this is a fifty-year plan.

Donald E. Buttry, Manager  
Regina MDWCA, Inc.  
PO Box 427  
Regina, NM 87046  
(505) 289-3544

## **Fifty Year Water Plan For Regina MDWCA, Inc.**

### **FIFTY YEAR WATER PLAN FOR REGINA MDWCA, INC.**

1. Support and encourage restoration and management of Watersheds on Public and Private Lands to enhance Water Retention and Quality and to reduce the threat of Wildfire.
2. Support the Cultural and Spiritual Values of Water and the Universal need for and importance of Water.
3. Ensure WATER and ACEQUIA Rights to preserve and protect the local Agricultural traditions.
4. Support Land and Water Use patterns that ensure a Rural Lifestyle and Economy.
  - Complete Phase II of the Upgrade project. Engineered and Surveyed. Funding pending since 2001.
  - Acquire the Land necessary for drilling a Second Well for use to accommodate the forecast increase in local population as well as the present waiting list for requested new meters. Include electrical power to that site, a Pump Building, a Booster Pump, a 10,000 gallon Tank, tie into the existing system and include an All Weather Road to that site.
  - Re-work and/or clean the San Jose and the South Spring after the drought period has ended. Neither of the Springs have produced any water after late November, 2002, after a gradual decrease in production from approximately 32 gallons per Minute, down to zero gallons per minute.
  - Replace any of the 27-year-old distribution system that is found to be defective and cannot be repaired.
  - Enlarge the size of the existing pipe of the distribution system as required by the increase in local population. At present, Regina has a moratorium on new meters due to lack of funding on Phase II of the upgrade project and the lack of sufficient water sources. We now have 62 on a waiting list for new meters. Regina cannot support economic growth without additional water and larger water lines.
  - Complete other Operation and Maintenance projects to include a Warehouse Building to accommodate storage of parts, parking of Backhoe and Service Truck and provide a point of bill collection and a meeting room. These O & M projects could also include replacement of service truck on a 5 to 10 year cycle per truck and replacement of system backhoe on a 15 year cycle.
  - Upgrade San Jose Trail to an All Weather road to allow access to the New 200,000 storage tank on a year around basis.
5. Support and Promote Conservation of Water
  1. Continue our graduated rate system. Our current rate system is \$21.50 for the first 6,000 gallons, then \$10.00 per 1,000 gallons for the next 6,000 gallons, then \$30.00 per 1,000 gallons for all over 12,000 gallons.
  2. Enhance our routine inspections for leaks and damage to the existing system, to ensure a minimum amount of water lost due to leaks.
  3. Continue to remind customers to conserve on Water use and retain the current Per Capita use of less than 40 gallons per day per person.
6. Promote Education on Land Use, Water use and Environmental Health and Water Conservation.

Jan Brown, President  
Regina MDWCA, Inc.

## **50-Year Plan For La Jara Water Users Association**

### **50-YEAR PLAN FOR LA JARA WATER USERS ASSOCIATION**

Plan continues to encourage restoration and maintenance of watersheds in the context of respecting traditional values and traditions.

Plan is based on assumption that population will at least double over the next 50 years, and quite possibly triple. With continued promotion of water conservation the demand for water will at least double in that period.

Projected needs of La Jara Water Users Association include:

1. Development of additional water source(s).
2. Upgrade of distribution system, including additional lines and larger mains. Larger mains will be needed for additional fire protection.
3. Maintenance and upgrades of current physical assets to both maintain quality service and to comply with ever-evolving state and federal regulations.

With Respect,

Marcella Van Cleve, La Jara Water Users Assoc.  
President.

## Comments to Water Resources Board - December 17, 2003

### Ernie Torrez' Comments to Rio Puerco Water Plan Introduction

The challenge in accomplishing a water plan where a strong agrarian culture exists requires the capacity to understand the value system of that culture and the integration of the components of those values within the sociopolitical realities of the area. Failure to address the value system creates conflict leading to legal remedies in order to protect property or compensate for takings of property.

There are numerous statements in the Rio Puerco sub region draft where the reader would surmise that ideas such as, "in-stream flow, restrictions on development, limited human populations," are acceptable and embraced by local citizenry. That is not the case. Another insult to the locals, that there is to be a "vision that takes advantage of modern innovation to accommodate a shift to an ethic that upholds respect for land, water, air and all living things," is insulting and disrespectful especially to those residents who have lived their lives in the region and are descendants of families dating back several generations.

A need to clarify/define terms and words is prevalent throughout the planning document. There exists no glossary in the planning document, which is troublesome when attempting to understand the probable baseline requirements which implementation would codify. For example, there is common knowledge which cattle growers and range biologists agree on regarding range plants in general and the impact of grazing on plant communities. Overgrazing is identified in the document and no definition or description is to be found.

Of special note is the absence of heavy industry or high density housing in the upper Rio Puerco area presently. The existing low population of residents would face more restrictions on growth including population controls. The mainstay of the current economy- agriculture- would also be regulated to a greater degree for reasons that are contradictory or mysteriously without definition. Quite simply, the implementation of the sub region plan with all its restrictions on the use of private property, easements, right of ways etc. would prevent a healthy economy. The danger in acknowledgment of the document as a "plan" is the perception of the reader that there is consensus within the sub region. Again that is not the case.

The sub region plan is fundamentally flawed and should not be endorsed

The following are comments on the fifty-year water plan for the Rio Puerco sub-regions.

#### **Item page: 12.1-27**

Objective: Decrease soil erosion and increase water retention and infiltration.

Actions: Reduce development and increasing use of unpaved roads.

Improve grazing management through methods such as fencing, pasturing and rotational grazing.

Comment: There are countless dirt roads alongside fence lines on federal state and private lands. Ranchers and irrigators utilize those roads when accomplishing the on-going fence repair usually caused by elk. Without question, the need to maintain fence lines is critical to any grazing regime however, the aforementioned actions are contradictory elements. There is a need for fence line roads so that fence repair occurs in a timely fashion. Pasturing and rotational grazing do not happen without good fences.

The elk population continues to increase every year and that fact is not acknowledged or identified/factored with any specificity when discussing grazing/overgrazing.

#### **Item 12.1-28**

Objective: Reduce, prevent and repair habitat loss along streams, arroyos, and in wetland and riparian areas.

Actions: Prohibit development in areas within flood plain. or which have hydrologic problems such as storm water ponding, poor drainage, and high water table. Prohibit development in wetlands or riparian areas.

Comment: How is this not a taking of property especially to families who divide property into lots for rightful heirs of family land?

#### **12.1-28**

Objective: Increase the bio-diversity and production on public and private lands including wild and domestic species.

Comment: Again the burgeoning elk population is, for all practical purposes-out of control and there is no mention of this under this topic/objective.

Actions: Seed with native grasses and plants.

Comment: While reseeding is a good idea native grasses are expensive and usually out of financial reach for most irrigators. (See attachment included in appendix)

#### **Item page 12.1-30**

Objective: Realize the spiritual benefits ... aside from the economic benefits.

Actions: All actions are noted here for comment

Comments: The cultural integrity of the acequia region is intact and most importantly regenerative. We do not need a plan of action to remind us to appreciate what we have and use. We celebrate our feast days based on church calendars.

Also, the region and leaders of the region carry on as descendant from a "long line" of people who will built the community. It is apparent the writer(s) of the plan will not credit the economic result

of the cultural effort i.e. schools, churches, roads and homes. Culture and economy are integrated and inseparable.

**12.1-30**

Goal: Ensure treaty, water and... agricultural traditions.

Comment: At no point in this plan is the authority of the acequias identified. The governing authority of the acequias in unincorporated areas is guaranteed through state law. Each item listed under this goal would require individual endorsement from each acequia. The complexities inherent with implementation of any action within this goal would require a working relationship between the implementers and each acequia.

**Item 12.1-32**

Objective: Base regional growth, planning and zoning on retaining the health of the entire ecosystem.

Actions  
and

Comments: Every action listed is unacceptable. Relative to the balance of the Mid Region it is safe to say the upper Rio Puerco has the highest percentage of Spanish, Mex.. and Native American people. "Putting geographical or numerical limits on population" is blatant racism.



| SHRUBS/FORBS         | PER # | SHRUBS/FORBS              | PER # |
|----------------------|-------|---------------------------|-------|
| Antelope Bitterbrush | 29.00 | Saltbush, Four-Wing       | 8.00  |
| Choke Cherry         | 15.00 | Saltbush, Shadscale       | 12.00 |
| Desert Globemallow   | 37.00 | Skunkbrush (3 leaf sumac) | ASK   |
| Mountain Mahogany    | 47.00 | Winter Fat                | 15.00 |
| Mountain Sage        | 8.50  | Woods Rose                | 14.00 |
| Rubber Rabbit Brush  | 8.00  | Wyoming Sage              | 8.50  |

**NATIVE GRASS BLENDS**

**HOMESTEADER'S CHOICE (Plains Area)**

1# - 10.00/# 5# - 9.25/# 20# - 8.75/#

Blue Grama, Buffalograss, Sideoats Grama, Western Wheatgrass, Sand Dropseed.  
 Use for small native dryland pastures. Works great in the Northern Half of New Mexico, Eastern Colorado, and the Texas Panhandle, as well as most areas in Western New Mexico and Eastern Arizona.  
 Elevation: 2,000 - 6,000 ft., precipitation 10-25". Height: 2 to 3 feet. Rate 2 pounds per 1,000-sq. ft. or 20 to 30 pounds acre.

**MOUNTAIN PASS (High Elevation)**

1# - 3.00/# 5# - 2.20/# 20# - 2.00/#

Smooth Brome, Crested Wheatgrass, Slender Wheatgrass, Intermediate Wheatgrass, and Russian Wildrye.  
 Use in high elevations for reclamation, pasture, or mountain meadows. Excellent for Northern New Mexico, and the mountains of Colorado. Elevation: 5,000-10,000 ft., precipitation 12-25".  
 Rate: 2 pounds per 1000 sq. ft., or 30-40 pounds per acre.

**PIONEER'S PRIDE (Southern Desert)**

1# - 12.00/# 5# - 11.25/# 20# - 11.00/#

Lehmanns Lovegrass, Yellow Bluestem, Galleta, Sideoats Grama, Sand Dropseed, Indian Ricegrass, and Alkali Sacaton.  
 Use for stabilizing sandy soils and rugged terrain. Grows best from El Paso to Albuquerque's west mesa, and Deming to Tucson. Elevation: Sea level to 6,000 ft., precipitation 7-25". Height: 1 to 4 feet.  
 Rate: 1/2 to one pound per 1,000-sq. ft. or 8 to 12 pounds per acre.

**SANTA FE TRAIL (Pinon/Juniper Areas)**

1# - 11.00/# 5# - 10.25/# 20# - 9.50/#

Blue Grama, Indian Ricegrass, Western Wheatgrass, Sideoats Grama, Galleta, Spike Muhly, Buffalograss, Alkali Sacaton, Sheep Fescue, and Little Bluestem.  
 Use for reclamation, dryland pasture, or re-establishment of native landscape. Plant in rolling to low mountain regions. Grows well from Clovis to Denver, also Santa Fe and Flagstaff areas, and works in most western parts of New Mexico. It adapts to a wide variety of soil types. Elevation: up to 7,500 ft. Height: 1 to 2 feet.  
 Precipitation: 9 to 25". Rate: 1 to 2 pounds per 1,000-sq. ft., or 20 to 30 pounds per acre.

Curtis & Curtis Inc. (505) 762-4769

10.25  
 7.75

10.25  
 102.50



old *monadelphum*  
*Andropogon* new  
*Schizanthium*  
*suspensum*

**NATIVES**

| <u>BLUESTEMS</u>        | <u>PER #</u> |
|-------------------------|--------------|
| Big, Kaw                | 8.50         |
| Little, Native          | 7.00         |
| Little, Cimarron        | 12.50        |
| Little, Pastura 1/11/03 | 12.50        |
| Sand, Woodward          | 9.50         |
| Ironmaster              | 9.00         |
| Plains                  | 8.00         |
| WW B-Dahl               | ASK          |
| WW Spar                 | 8.00         |

| <u>BUFFALOGRASS</u> | <u>PER #</u> |
|---------------------|--------------|
| Texoka (Primed)     | 9.00         |
| Plains (Primed)     | 9.50         |
| Top Gun (Primed)    | 10.50        |

| <u>DROPSEED</u> | <u>PER #</u> |
|-----------------|--------------|
| Giant           | 11.00        |
| Sand            | 7.50         |

| <u>GRAMA</u>          | <u>PER #</u> |
|-----------------------|--------------|
| Blue Grama, Native    | 7.40         |
| Blue Grama, Hochita   | 9.00         |
| Blue Grama, Lovington | ASK          |
| Blue Grama, Alma      | 9.00         |
| Sideoats, El Reno     | 4.60         |
| Sideoats, Vaughn      | 4.25         |

| <u>SWITCHGRASS</u> | <u>PER #</u> |
|--------------------|--------------|
| Blackwell          | 3.75         |
| Alamo              | 7.00         |

| <u>LOVEGRASS</u> | <u>PER #</u> |
|------------------|--------------|
| Ermelo Weeping   | 4.00         |
| Lehmans          | 18.00        |
| Plains           | ASK          |
| Sand             | 8.00         |

| <u>MISC. WARM SEASON VARIETIES</u> | <u>PER #</u> |
|------------------------------------|--------------|
| Alkali Sacaton                     | 8.00         |
| Bermuda, Giant                     | 7.00         |
| Bristlegrass, Plains               | ASK          |
| Gallera, Viva                      | 12.50        |
| Green Sprangletop                  | 9.50         |
| Indiangrass, Cheyenne              | 7.00         |
| Kleingrass, Selection 75           | 4.95         |
| Spike Muhty, El Vado               | 23.00        |

| <u>WHEATGRASS</u>  | <u>PER #</u> |
|--------------------|--------------|
| Crested, Ephraim   | 2.90         |
| Crested, Fairway   | 2.85         |
| Crested, Hycrest   | 2.60         |
| Crested, Nordan    | 2.60         |
| Intermediate, Oahe | 1.65         |
| Pubescent, Luna    | 1.50         |
| Slender            | 1.60         |
| Slender, San Luis  | 2.10         |
| Sodak, Streambank  | 3.10         |
| Tall, Jose         | 1.80         |
| Thickspike, Citana | 4.95         |
| Western, Arriba    | 3.45         |
| Western, Barton    | 4.00         |
| Western, Native    | 3.25         |

| <u>BROMEGRASS</u> | <u>PER #</u> |
|-------------------|--------------|
| Meadow, Regar     | 2.50         |
| Mountain, Bromar  | 2.65         |
| Smooth, Lincoln   | 1.30         |
| Smooth, Manchar   | 1.80         |

| <u>FESCUE</u>    | <u>PER #</u> |
|------------------|--------------|
| Tall, Fawn       | 1.15         |
| Tall, K-31       | 1.30         |
| Tall, Dovey      | 1.65         |
| Tall, Max Q      | 4.00         |
| Hard, Durar      | 2.45         |
| Sheep, VNS       | 2.60         |
| Arizona, Redondo | 22.00        |

| <u>ORCHARDGRASS</u> | <u>PER #</u> |
|---------------------|--------------|
| Latar               | 1.95         |
| Paiute              | 1.95         |
| Potomac             | 1.65         |

| <u>WILDRYE</u>    | <u>PER #</u> |
|-------------------|--------------|
| Russian, Bozolsky | 5.20         |
| Russian           | 2.65         |

| <u>MISC. COOL SEASON VARIETIES</u> | <u>PER #</u> |
|------------------------------------|--------------|
| Botlebrush Squirreltail            | 30.00        |
| Green Needlegrass, Lodorm          | 8.00         |
| Indian Ricegrass, Nezpar           | 6.75         |
| Indian Ricegrass, Patoma           | 12.50        |
| Needle & Thread                    | 62.00        |
| Perennial Ryegrass, Linn           | 1.10         |
| Timothy, Climax                    | 1.35         |

**PLEASE CALL FOR PLS PRICES**

Attached

# CURTIS & CURTIS, INC.

Star Rt. Box 8A, Clovis NM 88101  
E-Mail: [curtisseed@curtisseed.com](mailto:curtisseed@curtisseed.com)

RETAIL PRICE LIST  
FEBRUARY 2002

| <u>ALFALFA</u>            | <u>PER #</u> |
|---------------------------|--------------|
| Common*                   | 1.30         |
| Ranger*                   | 1.55         |
| Ladak*                    | 1.65         |
| Alfalfa/ Clover Inoculant | 4.00/pkg     |
| *No Inoculant applied     |              |

| <u>IMPROVED ALFALFA</u>            |      |
|------------------------------------|------|
| Select                             | 2.70 |
| Tango                              | 2.85 |
| Forager                            | 4.00 |
| Express                            | 2.85 |
| Ram                                | 2.95 |
| Spreador 3                         | 3.20 |
| *Improved varieties pre-inoculated |      |

| <u>CLOVERS</u>       |       |
|----------------------|-------|
| Alsike               | 1.75  |
| Ladino               | 3.90  |
| Red                  | 1.65  |
| Strawbery            | 5.00  |
| White Dutch          | 2.55  |
| Yellow Blossom Sweet | 1.35  |
| Purple Prairie       | 17.00 |
| White Prairie        | 20.00 |

| <u>PERENNIAL LEGUMES</u> |      |
|--------------------------|------|
| Birdsfoot Trefoil        | 3.25 |
| Crown Vetch              | ASK  |
| Cicer Milk Vetch         | 6.00 |
| Sainfoin, Remont         | 2.10 |
| Sainfoin, Renumex        | 2.10 |

| <u>CORN/SORGHUM*</u> |                  |
|----------------------|------------------|
| Asgrow               | Dekalb           |
| Navartis             | Sorghum Partners |
| Cargill              | Mycogen          |
| Golden Acres         | Golden Harvest   |
| Freedom              |                  |

• Call T.J. Curtis for new varieties and technical information

| <u>SMALL GRAINS</u> | <u>PER 50#</u> |
|---------------------|----------------|
| Barley, Tam Bar 401 | 9.00           |
| Oats, Chilocca      | 10.00          |
| Oats, Monida        | 11.00 →        |
| Oats, Maxl Grey     | 11.00 →        |

| <u>MILLET</u>       |       |
|---------------------|-------|
| German R Strain     | 24.00 |
| Hybrid Pearl CC102M | 26.00 |

| <u>SORGHUM-SUDANGRASS</u> |       |
|---------------------------|-------|
| <u>FORAGE SORGHUMS</u>    |       |
| Wondergraze SXS           | 16.00 |
| Sumac                     | 18.00 |
| Hegari                    | 15.00 |
| Triple Gainer BMR         | 22.50 |
| Mega Green                | 29.50 |
| Sweet Sudangrass          | 27.00 |

| <u>IRRIGATED PASTURES</u>                                  | <u>PER #</u> |
|--|--------------|
| CCI PREMIUM PASTURE  | 2.25         |
| 55% Sainfoin, 30% Jose Tall Wheatgrass, 15% Little Blumett |              |

| <u>HERDMASTER</u>   |      |
|---|------|
| 25% Perennial Ryegrass, 25% Orchardgrass, 25% Smooth Bromegrass, 25% Tall Fescue-Endophyte free | 1.40 |

| <u>EQUESTRIAN</u>   |      |
|---|------|
| 20% Orchardgrass, 40% Smooth Bromegrass, 15% Timothy, 10% Perennial Ryegrass, 10% Spreador 3 Alfalfa, 5% White Clover | 1.70 |

| <u>MISCELLANEOUS</u>               |      |
|------------------------------------|------|
| Buckwheat                          | 2.00 |
| Turnips                            | 1.50 |
| Pioneer Hybrid Triticale (Sterile) | 2.65 |
| Little Blumett                     | 1.75 |

- Price & availability subject to change - confirm when ordering
- All prices shown are bulk pounds

PHONE: (505) 762-4759

FAX: (505) 763-4213