

## **12.12. PUBLIC WELFARE STATEMENT AND SUB-REGIONAL FIFTY-YEAR WATER PLAN**

This section contains the Subregional Public Welfare Statement, as well as the combined scenario, now known as the Fifty-Year Water Plan for the Río Puerco and Río Jemez Subregions.

### **12.12.1. Río Jemez and Río Puerco Public Welfare Statement**

As discussed in Sections 2 and 3, the Steering Committees reviewed various welfare statements, determining to use the one under discussion in the Middle Río Grande Valley Subregion as of late August, 2003 as the initial basis. From there, modifications were made, and then the statement was presented at the Open Houses in November for comment. Based upon the input, the Steering Committee adopted the following welfare statement in December 2003.

#### Introduction

This public welfare statement is for the Río Jemez and Río Puerco watersheds, being subregions to the Middle Río Grande Regional Water Planning Region. It is part of our subregional 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 or the Río Puerco. This public welfare statement will accomplish its purpose if conflicts are reduced in the subregions, and if decisions reflect the long-term future needs of the subregions, 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 subregions which need to be appreciated and fairly balanced to ensure the overall safety, security and well-being for the subregions. Such values include cultural, spiritual, economic, environmental and hydrologic viability for the subregions. 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 five guiding principles:

#1 - we respect the essential role of water in maintaining our spiritual and cultural values;

#2 - we maintain and improve the health of our region’s water resources; i.e., the greatest benefit to water users in the watershed is to slow the rate of flow and keep as much water up here (in the mountains) and within the watersheds as we can;

#3 - we encourage conservation and discourage waste (e.g., impractical or unreasonable use);

#4 - we optimize the efficient use of our limited water resources in the context of restoring watersheds; and

#5 - we enhance a rural agricultural economy as opposed to 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.

### 12.12.2. Fifty-Year Water Plan for the Río Puerco and Río Jemez Subregions

The vision statements, alternatives and scenarios were combined to create the Fifty-Year Water Plan for the Río Jemez and Río Puerco Subregions. The appendices contain the versions from the May scenario statements to the final accepted version.

**Table 12-14: FIFTY YEAR WATER PLAN FOR THE RIO PUERCO AND RIO JEMEZ SUBREGIONS**

<b>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</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Restore a fire-adapted watershed</li> </ul>	<ul style="list-style-type: none"> <li>• Thin forests and woodlands in an ecologically sound manner (A-66)</li> <li>• Treat grassland brush in an ecologically sound manner</li> <li>• Develop a network of natural and artificial fire and fuel breaks to define 5000+ acre fire management units throughout the watershed</li> <li>• Manage forage utilization to maintain ground cover and carry fire</li> </ul>	<ul style="list-style-type: none"> <li>• Within 30 years</li> </ul>	<ul style="list-style-type: none"> <li>• New federal fuel reduction and fire prevention funds for public lands</li> <li>• Tax rebates and credits, and matching funds for private land</li> <li>• New state fuel reduction and fire prevention funds for state lands</li> <li>• Use Best Management Practices</li> </ul>	<ul style="list-style-type: none"> <li>• Protect watershed, land and property values</li> <li>• Reduce potential of catastrophic wildfires</li> <li>• Save costs in suppression of catastrophic fires</li> <li>• Create many local jobs</li> <li>• Create value added industry, and permanent jobs</li> </ul>

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<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	<ul style="list-style-type: none"> <li>• Apply prescribed fire frequently and extensively to established fire management units</li> <li>• Create defensible spaces around all dwellings and structures</li> <li>• Provide for adequate fire protection of structures to facilitate burning</li> </ul>			
<ul style="list-style-type: none"> <li>• Decrease soil erosion and increase water retention and infiltration</li> </ul>	<ul style="list-style-type: none"> <li>• Expand watershed management programs (A-33)</li> <li>• Promote good soil management practices</li> <li>• Reduce and prevent surface water runoff on grazed lands</li> <li>• Reduce development and increasing use of unpaved roads</li> <li>• Use low impact agricultural methods such as shallow or no plowing</li> <li>• Apply soil conservation techniques such as installation of field borders</li> <li>• Improve grazing management through methods such as fencing, pasturing, rotational grazing</li> <li>• Laser level irrigated fields</li> <li>• Line or pipe irrigation ditch systems, or segments most prone to erosion</li> <li>• Improve groundcover on rangeland</li> </ul>	<ul style="list-style-type: none"> <li>• Within 15 years</li> </ul>	<ul style="list-style-type: none"> <li>• New federal soil erosion funds for public lands</li> <li>• Tax rebates and credits, and matching funds for private land</li> <li>• New state soil erosion funds for state lands</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce deterioration of the land</li> <li>• Increase productivity of land</li> <li>• Increase benefit to landowners and producers</li> <li>• Retain soil nutrients, topsoil and seed</li> <li>• Reduce flash runoff and gullying</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce, prevent and repair incising of arroyos</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce formation of, and stabilize head cuts, gullies and arroyos</li> <li>• Use Best Management Practices to catch soils and fill arroyos</li> <li>• Repair deeply eroded cuts with heavy equipment</li> <li>• Repair smaller cuts with grade stabilization structures such as weirs, net wire diversions, rock and brush dams</li> <li>• Monitor and maintain all structures</li> </ul>	<ul style="list-style-type: none"> <li>• Within 30 years</li> </ul>	<ul style="list-style-type: none"> <li>• New federal erosion funds for public lands</li> <li>• Tax rebates and credits, and matching funds for private land</li> <li>• New state erosion funds for state lands</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce general deterioration of the land</li> <li>• Increase benefit to landowners and producers</li> <li>• Retain soil nutrients, topsoil and seed</li> <li>• Raise the water table and recharge springs and seeps</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce, prevent, and repair habitat loss along streams,</li> </ul>	<ul style="list-style-type: none"> <li>• Re-vegetate along streams and ephemeral waterways, plant willow and cottonwood trees at unstable banks and along non-vegetated segments</li> </ul>	<ul style="list-style-type: none"> <li>• Within 15 years</li> </ul>	<ul style="list-style-type: none"> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce loss of important plant species in drought years</li> <li>• Improve functioning of vegetation for flood</li> </ul>

<b>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</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
arroyos, and in wetland and riparian areas	<ul style="list-style-type: none"> <li>• Construct fencing to protect riparian and wetland areas, and plantings from livestock</li> <li>• Stabilize channel banks</li> <li>• Re-create and induce stream meanders</li> <li>• Enhance and protect floodplains</li> <li>• Prohibit development in areas within flood plains, or which have hydrologic problems such as storm water ponding, poor drainage, high water table</li> <li>• Prohibit development in wetlands or riparian areas</li> </ul>		organizations <ul style="list-style-type: none"> <li>• Tax rebates and credits, and matching funds for private land</li> </ul>	and sediment control <ul style="list-style-type: none"> <li>• Reduce flooding damages</li> <li>• Provide habitat for numerous wildlife species, and migratory birds</li> <li>• Increase opportunities for wildlife viewers and hunters</li> </ul>
<ul style="list-style-type: none"> <li>• Increase the bio-diversity and production on public and private lands including wild and domestic species</li> </ul>	<ul style="list-style-type: none"> <li>• Manage sagebrush monocultures and reduce numbers of juniper trees</li> <li>• Remove non-native vegetation from riparian areas</li> <li>• Control noxious, invasive, and non-native weed species (A-1)</li> <li>• Seed with native grasses, and plants</li> <li>• Develop grass banks and other cooperative programs</li> <li>• Develop drought management plans for grazing</li> </ul>	<ul style="list-style-type: none"> <li>• Within 20 years</li> </ul>	<ul style="list-style-type: none"> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> </ul>	<ul style="list-style-type: none"> <li>• Healthy and productive plant and animal communities in an ecosystem with a diversity of species, size classes, and ages</li> <li>• Increase drought resistance</li> <li>• Increase forage, native grass production, and groundcover</li> <li>• Create local jobs</li> <li>• Increase benefit to landowners and producers</li> </ul>
<ul style="list-style-type: none"> <li>• Provide, consistent and sustainable sources, and adequate distribution of rangeland water</li> </ul>	<ul style="list-style-type: none"> <li>• Drill wells for development of alternative upland water</li> <li>• Install improved well pump technology on existing wells</li> <li>• Install water pipelines and drinking troughs</li> <li>• Use various methods to reduce competition for forage between livestock and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>• Within 15 years</li> </ul>	<ul style="list-style-type: none"> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve a balanced animal-use pattern across the landscape to reduce overgrazing, and increase size and productivity of wildlife and livestock</li> <li>• Increase water availability and distribution to reduce competition for water resources between livestock and wildlife</li> </ul>

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<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Maintain agriculture and ranching as part of the whole ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>• Implement management practices that are environmentally friendly and sustainable</li> <li>• Create and implement local management plans</li> <li>• Promote an attitude of stewardship of the integrity of the ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Work with land management agencies to develop plans</li> <li>• Work with local planners to create and maintain relevant zoning</li> </ul>	<ul style="list-style-type: none"> <li>• Increase sustainability of farming and ranching</li> <li>• Increase benefit to landowners and producers</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain the scenic and ecological conditions which attracted our ancestors &amp; us to the area</li> </ul>	<ul style="list-style-type: none"> <li>• Create and implement local management plans</li> <li>• Include forests, rangelands wetland/riparian areas; ranching and agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with land management agencies to develop plans</li> <li>• Work with local planners to create and maintain relevant zoning</li> </ul>	<ul style="list-style-type: none"> <li>• Promote general well being of residents</li> <li>• Provide sustainable tourist industry</li> </ul>

<b>GOAL: SUPPORT THE CULTURAL AND SPIRITUAL VALUES OF WATER, AND THE UNIVERSAL NEED FOR AND IMPORTANCE OF WATER</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• Promote appreciation of the dependence of all life on water</li> <li>• Promote the sanctity of watercourses</li> <li>• 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</li> <li>• Promote a fall harvest festival linked to the County Fair to celebrate the perseverance and cohesion of rural agricultural communities</li> <li>• Promote water events throughout the year to keep people focused on the importance of water and soil management</li> <li>• Develop public parks and interpretive areas along perennial streams near villages</li> <li>• Develop adopt-a-watercourse programs</li> <li>• Develop community gardens</li> <li>• Maintain local cultural and religious traditions</li> </ul>	<ul style="list-style-type: none"> <li>• Within 10 years</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate community and spiritual leaders around water and land care</li> </ul>	<ul style="list-style-type: none"> <li>• Promote cohesion of the community regarding care for the ecosystems that sustain us</li> </ul>

<b>GOAL: ENSURE TREATY, WATER, AND ACEQUIA RIGHTS TO PRESERVE AND PROTECT LOCAL AGRICULTURAL TRADITIONS</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>Promote agriculture and its beneficial use of water</li> </ul>	<ul style="list-style-type: none"> <li>Form local agricultural cooperatives to work fallow land</li> <li>Support acequia and agricultural land improvement programs</li> </ul>	<ul style="list-style-type: none"> <li>Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>Develop federal, state, local, and charitable funding</li> <li>Work with relevant agencies and non-profit organizations</li> <li>Work with legislators and local officials to develop mechanisms and legislation which integrates and expands on ways to protect water for agriculture</li> </ul>	<ul style="list-style-type: none"> <li>Maintain productivity of agricultural lands</li> <li>Maintain agricultural water rights</li> <li>Protect and preserve areas presently and historically used for agricultural practices</li> </ul>
<ul style="list-style-type: none"> <li>Maintain the integrity of the traditional acequia systems that have existed for generations</li> </ul>	<ul style="list-style-type: none"> <li>Protect acequia priority of rights-of-way</li> <li>Encourage acequias to pass bylaws to review any change of diversion in accord with §73-2-21(E)</li> <li>Encourage acequias to pass bylaws to create a water bank in accord with §73-2-551</li> <li>Map, catalog, and describe acequias including annual water use</li> <li>Identify, quantify, and adjudicate surface water rights and order of water utilization (A-71)</li> </ul>	<ul style="list-style-type: none"> <li>Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>Develop federal, state, local, and charitable funding</li> <li>Work with relevant agencies and non-profit organizations</li> <li>Work with legislators and local officials to develop mechanisms and legislation which integrates and expands on ways to protect acequias</li> </ul>	<ul style="list-style-type: none"> <li>Maintains the diversity of historic, and prehistoric cultures and traditions</li> <li>Increase benefit to landowners and producers</li> </ul>
<ul style="list-style-type: none"> <li>Increase efficiency of irrigation ditch systems</li> </ul>	<ul style="list-style-type: none"> <li>Develop a consistent and sustained supply, and distribution of irrigation water</li> <li>Provide annual maintenance to all irrigation ditches</li> <li>Line or pipe irrigation ditch systems</li> <li>Construct head, and farm gates for water control</li> <li>Maintain and repair culverts, flumes, head, and farm gates</li> <li>Re-contour and repair segments of ditches to reduce gradient, and prevent incising</li> <li>Laser level fields</li> </ul>	<ul style="list-style-type: none"> <li>Within 10 years</li> </ul>	<ul style="list-style-type: none"> <li>Develop federal, state, local, and charitable funding</li> <li>Work with relevant agencies and non-profit organizations</li> <li>Work with legislators and local officials to develop mechanisms and legislation which integrates and expands on ways to maintain acequias</li> <li>Tax rebates and credits, and matching funds for private land</li> </ul>	<ul style="list-style-type: none"> <li>Increase productivity of irrigated land</li> <li>Increase availability of water during drought</li> <li>Provide a topography that makes application of water to fields more</li> </ul>
<ul style="list-style-type: none"> <li>Keep water with the land</li> </ul>	<ul style="list-style-type: none"> <li>Establish a severance fee to discourage removal of water and land from an acequia system</li> <li>Develop mechanisms to ensure water rights are not lost if water is kept in or returned to a waterway</li> </ul>	<ul style="list-style-type: none"> <li>Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>Work with relevant agencies and non-profit organizations</li> <li>Work with legislators and local officials to develop mechanisms and</li> </ul>	<ul style="list-style-type: none"> <li>Maintains a link to the customary laws and practices of historic and prehistoric cultures and traditions</li> <li>Increase options for</li> </ul>

<b>GOAL: ENSURE TREATY, WATER, AND ACEQUIA RIGHTS TO PRESERVE AND PROTECT LOCAL AGRICULTURAL TRADITIONS</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	<ul style="list-style-type: none"> <li>• Develop mechanisms to prevent transfer of surface and ground water rights from their locality</li> <li>• Prevent sale of water out of sub-regions</li> <li>• Promote customary laws &amp; practices in existence prior to the 1848 Treaty of GH that promote agriculture and communal property</li> </ul>		legislation which integrates and expands on ways to maintain traditional communal concepts	the use of agricultural water without loss of water rights
<ul style="list-style-type: none"> <li>• Promote respect for rural, tribal, farming, and ranching lifestyles</li> </ul>	<ul style="list-style-type: none"> <li>• Form lobbying groups</li> <li>• Form local acequia and agricultural Associations</li> <li>• Educate about the importance of farming and ranching</li> </ul>	<ul style="list-style-type: none"> <li>• Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with legislators and local officials to develop mechanisms and legislation which integrates and expands on ways to maintain rural, tribal, farming, and ranching lifestyles</li> <li>• Work with school officials to develop curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Recognition of the importance of agriculture and rural areas</li> </ul>

<b>GOAL: RETAIN LAND USE PATTERNS THAT SUPPORT AND ENSURE A RURAL LIFESTYLE AND ECONOMY</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Base regional growth, planning, and zoning on retaining the health of the entire ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>• Tie land-use to demonstrated availability of water</li> <li>• Manage growth within the limits of water, and a rural landscape (A-52)</li> <li>• Require water availability before land subdivision</li> <li>• Manage growth by putting geographical or numerical limits on population</li> <li>• Implement land use plans that differentiate between rural, suburban, and urban areas</li> <li>• Maintain large areas of mostly vacant and predominantly undeveloped land, with limited low-density housing</li> <li>• Encourage designated areas for higher density housing with clean, eco-friendly, nearby businesses, and industries</li> <li>• Use creative planning that does not require commuting</li> <li>• Include the cost of environmental damage when</li> </ul>	<ul style="list-style-type: none"> <li>• Over the next 50 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with local and county planners</li> <li>• Work with legislators</li> </ul>	<ul style="list-style-type: none"> <li>• Promote general well being of residents</li> <li>• Provide a sustainable economy</li> <li>• Increase ability to withstand drought</li> </ul>

<b>GOAL: RETAIN LAND USE PATTERNS THAT SUPPORT AND ENSURE A RURAL LIFESTYLE AND ECONOMY</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	assessing planning alternatives • Consider the cumulative affects of development			
• 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	• Within 10 years	• Work with federal, state, county, and local agencies and officials	• Share experience and knowledge • Coordinate projects and activities • Prevent duplication of effort
• 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	• Over the next 50 years	• Work with legislators and local officials to develop legislation and mechanisms which integrate county, state, and federal policies and processes • Promote a "Very-Small-Business Center" • Promote locally-owned businesses • Work with local banks, and agricultural associations to aid local agricultural producers who lack financial resources • Provide low interest loans for enterprises that promote a rural lifestyle, cottage industries, eco-tourism, and cooperatives	• Agricultural cooperatives will promote and sustain agriculture through education, financial support, improved farming methods, crop diversity, shared use of equipment and teaching children about the importance and benefit of agriculture, and good agricultural conservation methods • Allow farmers and ranchers to work on the land, rather than elsewhere in order to maintain it • Enable future generations to farm and ranch • Provide sustainable tourist industry • New markets that are organic, predator friendly, low-impact
• 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	• Over the next 50 years	• Work with legislators and local officials to develop laws • Work with land trusts to develop mechanisms to retain agricultural land • Work with officials to develop land use	• Maintains an agricultural land base • Promote general well being of residents • Maintains rural atmosphere

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<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	<ul style="list-style-type: none"> <li>• Prevent paving over and building on agricultural lands</li> </ul>		management tools to prevent development on irrigated or non-irrigated farmland	
<ul style="list-style-type: none"> <li>• Protect and improve the quality of the domestic supply of surface and ground water</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and protect groundwater recharge areas (A-47)</li> <li>• Ensure modernized, well-maintained water systems</li> <li>• Limit and reduce vehicular water crossings</li> <li>• Clean up watercourses, remove garbage, trash, and vehicles from arroyos</li> <li>• Require sewage treatment systems in higher density communities (A-26)</li> <li>• Use constructed wetlands for final sewage treatment (A-36)</li> <li>• Remove trace elements</li> </ul>	<ul style="list-style-type: none"> <li>• Within 10 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials</li> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> <li>• Create programs to aid rural water organizations with the proposal writing and funding process</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure satisfactory water quality</li> </ul>
<ul style="list-style-type: none"> <li>• Provide for increased, consistent and sustainable sources of both domestic and agricultural water</li> </ul>	<ul style="list-style-type: none"> <li>• Implement projects to thin trees and brush on public and private land</li> <li>• Implement controlled burn projects on public and private land</li> <li>• Construct water storage reservoirs and tanks</li> <li>• Install community domestic supply wells</li> <li>• Identify and provide for residential fire-fighting water</li> <li>• Limit domestic wells to 16 per section</li> <li>• Address ground/surface water interactions in state water-rights statutes (A-144)</li> <li>• Limit wells that could impair surface or groundwater (A-61)</li> <li>• Develop local drought plans (A-18)</li> </ul>	<ul style="list-style-type: none"> <li>• Within 10 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials</li> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> <li>• Create programs to aid rural water organizations with the proposal writing and funding process</li> </ul>	<ul style="list-style-type: none"> <li>• Water use will match water supply</li> <li>• Increase ability to withstand drought</li> </ul>

<b>GOAL: PROMOTE CONSERVATION OF WATER</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Develop water-wise residents and communities</li> </ul>	<ul style="list-style-type: none"> <li>• Disseminate water-saving information (A-56)</li> <li>• Develop local water budgets to understand water recharge and water use</li> </ul>	<ul style="list-style-type: none"> <li>• Within 15 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials</li> <li>• Develop federal, state, local, and charitable</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in public understanding of water use and conservation</li> <li>• Increase in water conservation</li> </ul>

<b>GOAL: PROMOTE CONSERVATION OF WATER</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	<ul style="list-style-type: none"> <li>• Develop local water conservation and drought plans (A-18)</li> <li>• Adopt graduated water rates in all domestic systems (A-21)</li> <li>• Institute incentives for water conservation and recycling</li> <li>• Adopt a conservation fee added to all water systems for promotion of water conservation</li> <li>• Meter all water supply wells (A-8)</li> <li>• Meter all surface water diversions (A-7)</li> </ul>		funding <ul style="list-style-type: none"> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> </ul>	
<ul style="list-style-type: none"> <li>• Increase efficiency of water use</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage use of new water-saving technologies (A-22)</li> <li>• Encourage greywater reuse (A-24)</li> <li>• Encourage rainwater harvesting (A-44)</li> <li>• Improve storm water management (A-34)</li> <li>• Capture flood flows</li> <li>• Reduce water loss in acequias</li> <li>• Increase irrigation efficiency (A-10)</li> <li>• Reduce artificial open water evaporation (A-45)</li> <li>• Fund domestic water cooperatives to improve their water systems</li> <li>• Fund acequias to increase operating efficiency (A-60)</li> </ul>	<ul style="list-style-type: none"> <li>• Within 15 years</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials</li> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with relevant agencies and non-profit organizations</li> <li>• Tax rebates and credits, and matching funds for private land</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction in water waste</li> </ul>

<b>GOAL: PROMOTE EDUCATION FOR AREA RESIDENTS REGARDING THE CONNECTION BETWEEN LAND USE, WATER AND ENVIRONMENTAL HEALTH, AND WAYS TO CONSERVE WATER</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Create water conscious communities and assist future generations in learning about water</li> </ul>	<ul style="list-style-type: none"> <li>• Develop school curricula and outdoor projects on subjects such as soil and water conservation, and alternative energy and building methods (A-56)</li> <li>• Develop school curricula concerning water conservation methods, such as, mulching, composting, swales, rain barrels and other catchment systems, and uses hands on training</li> <li>• Provide a secondary education facility</li> </ul>	<ul style="list-style-type: none"> <li>• Within 10 years ensure every education level includes water and land use curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials, and non-profit organizations</li> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with local schools to develop water and land use projects and curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of healthy land and watersheds as personal and community wealth</li> <li>• Understanding of the interrelationship of water and land management in watersheds</li> <li>• Understanding of the role of watersheds to store and release water</li> <li>• Understanding of the</li> </ul>

<b>GOAL: PROMOTE EDUCATION FOR AREA RESIDENTS REGARDING THE CONNECTION BETWEEN LAND USE, WATER AND ENVIRONMENTAL HEALTH, AND WAYS TO CONSERVE WATER</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
	<ul style="list-style-type: none"> <li>• Create a Natural Resource Educational Program (partner school districts with agencies such as Cuba Soil and Water Conservation District)</li> <li>• Educate about ways to wisely use and reuse water</li> <li>• Provide seminars and courses at local schools</li> </ul>			<p>central role of climate and fire in the ecology of natural communities</p> <ul style="list-style-type: none"> <li>• Understanding of the natural limits to the productivity of land</li> <li>• Understanding of the natural limits to plant, wildlife and human dependence on land</li> <li>• Understanding of factors conducive to erosion, and methods to reduce or prevent it</li> <li>• Understanding of the importance of riparian and wetland areas</li> <li>• Understanding of alternative methods of livestock handling,</li> <li>• Understanding of relevant contemporary farming technologies and practices,</li> <li>• Understanding of the benefits and means of water conservation</li> <li>• Understanding of the link between detrimental impacts to the natural environment and economic losses of local producers</li> </ul>
<ul style="list-style-type: none"> <li>• Educate people (farmers and non-farmers) about the importance of land and water stewardship, and farming and ranching</li> </ul>	<ul style="list-style-type: none"> <li>• Share local agriculture knowledge</li> <li>• Share local knowledge and traditions regarding nurturing the land and husbanding the water</li> <li>• Make educational packets available at Pueblo and Forest Service offices</li> <li>• Promote an attitude of stewardship of the integrity of the ecosystems</li> <li>• Involve children and young adults in agriculture</li> <li>• Educate newcomers and visitors about local traditions and lifestyles</li> </ul>	<ul style="list-style-type: none"> <li>• Within 10 years ensure every education level includes curricula regarding the importance of agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Work with federal, state, county, and local agencies and officials, and non-profit organizations</li> <li>• Develop federal, state, local, and charitable funding</li> <li>• Work with local schools to develop agricultural projects and curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Allow local residents to stay in the area</li> <li>• Teach technology and business skills needed to develop water and land centered occupations and enterprises</li> <li>• Train youth to create occupations, mini businesses and enterprises</li> <li>• Reduce misunderstandings between newcomers, tourists, and long time residents</li> </ul>

<b>GOAL: PROVIDE FOR MONITORING THE IMPLEMENTATION OF THE WATER PLAN</b>				
<b>OBJECTIVE</b>	<b>ACTIONS</b>	<b>LENGTH</b>	<b>FUNDING/POLICIES</b>	<b>BENEFITS</b>
<ul style="list-style-type: none"> <li>• Public participation in the water planning process and water management</li> </ul>	<ul style="list-style-type: none"> <li>• Increase monitoring and modeling of surface and groundwater (A-38)</li> <li>• Develop geographic watershed information system (A-73)</li> <li>• Maintain watershed steering committees</li> <li>• Fund ongoing water planning (A-58)</li> <li>• Ensure continued public participation in water issues (A-53) through local water assemblies</li> </ul>	<ul style="list-style-type: none"> <li>• Within 20 years</li> </ul>	<ul style="list-style-type: none"> <li>• Use state and federal support</li> <li>• Legislation will create and support citizen water assemblies/forums until their functions can be integrated into all levels of executive and legislative branches</li> </ul>	

\* Numbers refer to corresponding alternative actions considered in the Middle Rio Grande Region Plan.

Two laws, passed by the New Mexico legislature in 2003, give more control to the acequias, should they chose to exercise same:

- 1) §73-3-4.1. Commissioners; additional duties; approval of changes in place or purpose of use of water; appeals. (Effective March 1, 2004.). (2003)
- 2) §73-2-551 Water banking; acequias and community ditches (2003)