

Note: See last page for explanation of numerical scores.

Alt. ID No.	Alternative Action Feasibility Ratings <sup>1</sup>	Technical Feasibility	Physical, Hydrological, Environmental Feasibility	Economic Feasibility	Social and Cultural Implications	Legal Implications
	<b>Increase Water Supply</b>					
	<b>Watershed and Land Management</b>					
A-66	Implement local and regional watershed management plans through all land and water agencies in the planning area.	4	4	4	4	3
A-1	Restore Bosque habitat and manage vegetation in the Bosque to reduce evapotranspiration by selectively removing vegetation and promoting native plants.	4	5	4	5	5
A-33	Establish erosion prevention measures and use soil and vegetation management techniques to reduce runoff and increase infiltration throughout the watershed, including forested mountains and uplands.	4	3	4	5	4
A-34	Enhance and expand local government storm water management plans and programs to control runoff using swales, terraces, and retention structures to minimize erosion, enhance infiltration and recharge, and prevent pollution of surface and ground water.	4	3	3	5	5
A-40	Continue evapotranspiration studies and apply findings to vegetation management programs in the water planning region.	5	3	4	4	5
A-36	Create constructed wetlands where feasible for groundwater recharge, water harvesting, and habitat improvement, and hydrological management of the Rio Grande.	2	1 <sup>2</sup>	1	3	3
A-2	Develop economic potential of non-native species removal, harvesting, and output of products by local industries.	2	4	4	4	5
	<b>Move Storage Reservoirs</b>					
A-45	Reduce open water evaporation in storage reservoirs by retaining water at higher elevations or latitudes, or by reducing surface areas. (Does not include sub-alternatives, e.g. surfactants)	4	4	4	2	2
A-38	Increase monitoring and modeling of surface water system to improve water management at the watershed level, and retain excess water flow from Elephant Butte Reservoir during wet cycles.	5	3	5	5	5
A-46	Inject water treated to drinking water standards for aquifer storage in appropriate locations throughout the water planning region.	4	4	4	3	3
	<b>Water Harvesting</b>					
A-44	Encourage on-site rainwater harvesting	5	3	3	3	5 <sup>3</sup>

<sup>1</sup> Technical contract team did not evaluate or develop fact sheets for those alternatives with an ALTS Working Team Rating of “L” or “M”. Ratings for these nineteen alternatives are based on the professional judgment of technical team.

<sup>2</sup> Do not work well; cause evaporative losses, public health issues.

<sup>3</sup> OSE has authority to regulate, may do so if widespread implementation results in significant amount of water harvested.

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	<b>Water Reuse Programs</b>					
A-24	Promote, through incentives, on-site residential and commercial greywater reuse and recycling	3	2	2	3	3
A-27	Reuse treated wastewater for non-potable uses.	3	3	3	2	4
	<b>Low-Quality Water Development</b>					
A-39	Utilize technological advances for treating deep saline and brackish water for potable or non-potable use in the region.	2	4	3	3	3
	<b>Importation of Water (Water Rights)</b>					
A-69	Acquire additional water rights without condemnation from various sources from within or outside the water planning region, and import water from other basins where possible.	4	4	4	2	3
	<b>Weather Modification</b>					
A-42	Conduct research on innovative water supply enhancement techniques such as weather modification.	5	3	3	3	5
	<b>Decrease or Regulate Water Demand</b>					
	<b>Conservation Plans and Programs</b>					
A-18	Adopt and implement local water conservation plans and programs in all municipal and county jurisdictions, including drought contingency plans.	4	5	3	4	5
A-21	Examine a variety of water pricing mechanisms and adopt those that are most effective at conserving water. The mechanisms to be examined include: a) price water to reflect the true value; b) institute a moderately increasing block price schedule; c) institute a steeply increasing block price schedule; and d) other feasible incentives and subsidies for conserving water.	5	3	2	3	5
A-22	Provide local government programs that offer subsidies for adoption of water efficient technologies and utilization of water saving devices.	5	5	3	4	5
A-56	Establish region-wide educational programs, including public and private school curricula, to encourage voluntary conservation of water.	5	5	4	4	5
	<b>Irrigation Practices / Regulation</b>					
A-10	Develop and employ alternatives to maximize irrigation efficiency on all irrigated land in the region.	4	4	3	2	5
A-7	Meter and manage surface water distribution flows through all irrigation systems to conserve water.	4	4	3	1	5
	<b>Irrigation Practices / Regulation (continued)</b>					
A-9	Develop conveyance alternatives for water transportation in agricultural irrigation systems.	5	4	3	2	5
A-60	Fund acequias to develop and implement water conservation programs.	5	4	4	5	5
	<b>Domestic Well Practices and Septic Tank / Regulation</b>					
A-8	Meter all water supply wells, including domestic wells, throughout the water planning region.	3	4	1	2	4
A-61	Reduce the allowed pumping from domestic wells and restrict drilling of domestic wells where surface	4	4	3	2	2

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	waters or the aquifer could be impaired.					
	<b>Change Water Uses to Increase Supply / Decrease Demand</b>					
	<b>Change Irrigation Crops / Markets</b>					
A-11	Develop markets for locally-grown produce, and low-water alternative crops.	2	4	4	5	5
	<b>Land Use Policies and Regulation</b>					
A-30	Adopt policies to integrate land use and transportation planning and water resource management in all government jurisdictions in the Middle Rio Grande water planning region.	4	5	2 <sup>4</sup>	5	3
A-28	Increase building densities (as compared to typical suburban density) and infill development through adoption of local government land use policies and regulations.	5	4	2 <sup>5</sup>	4	4
	<b>Water Rights Regulation</b>					
	<b>Water Rights Adjudication</b>					
A-71	Identify, quantify, and adjudicate all water rights and all wet water quantities in the water planning region.	4	5	3	3	3
A-63	Change state water law to include in-stream flow as a beneficial use.	4	4	3	4	3
A-144	Address groundwater/surface water interactions in the statutes for administering water rights	4	4	2	2	4
A-143	Active water resource management by the OSE/ISC	5	5	3	4	5
	<b>Compact Requirements</b>					
A-51	Establish more equitable accounting for evaporative losses in Rio Grande Compact water.	4	3	4	5	1
	<b>Water Quality Protection</b>					
	<b>Well Head Protection</b>					
A-47	Identify, protect and monitor areas vulnerable to contamination (quality issue) and restrict groundwater supply wells in sensitive areas.	4	3	2	4	5
A-50	Enforce wellhead protection programs on all public water supply wells within local government jurisdictions.	4	3	2	4	5
	<b>Wastewater Collection and Treatment</b>					
A-26	Expand use of centralized wastewater collection and treatment systems into all areas of urban and suburban development within the water planning region.	4	4	3	3	5
	<b>Implementation of Plan &amp; Management of Water Resources</b>					
	<b>Regional Management Authority</b>					

<sup>4</sup> This alternative does not have a potential for water loss.

<sup>5</sup> This alternative has a potential for water savings.

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A-67	Establish a regional water management authority to provide professional water resource management and to administer or assist in a water banking program.	2	4	2	3	2
A-15	Preserve, but continue to draw deep-well water for drinking purposes only.	1	1	1	2	2
	<b>Growth Management Plans</b>					
A-52	Develop a sustainable and coordinated growth management plan for adoption and implementation by local governments in the middle Rio Grande region in order to: 1) reduce water consumption; 2) minimize impact on water resources; 3) encourage conservation-oriented economic development and 4) ensure adequate water supplies for any proposed development.	4	4	3	3	4
A-53	Through open and inclusive processes, ensure public involvement in water planning by continuing regular public information/dissemination programs and public relations campaigns, and citizen planning committees. Keep the public engaged in this process.	5	5	3	5	5
A-73	Establish and integrate a regional Geographical Information System (GIS) database of publicly accessible information on water resources and photo imagery covering the water planning region.	5	5	3	4	5
	<b>Funding</b>					
	<b>Establish Funding</b>					
A-58	Establish dedicated and continuing funding for Regional Water Planning as an ongoing process and as a basis for water management at local, regional and state levels.	5	5	3	4	4
	<b>Taxation</b>					
A-59	Establish a State-based water severance tax for water projects, planning and conservation.	2	4	2 <sup>6</sup>	3	2

<sup>6</sup> This alternative could result in some water savings.

## Explanation of Ratings:

**Technical**

- 1 Major impediment, very high cost, requires developing and proving new technology, lengthy or unknown time frame to implement.
- 2 Technology is under development but not proven, not cost effective, lengthy time frame to implement.
- 3 Innovative technology, costs are generally higher than market price of water, moderate time frame to implement
- 4 Can be implemented fairly quickly, cost effective, common technology, some infrastructure may be required.
- 5 No impediments, quick, very cost effective, already being done, no significant infrastructure or if so, it is cost effective.

**Physical**

- 1 Will lose some water, (e.g. increases evaporation), highly detrimental environmental effects, degrades water quality.
- 2 Potential to lose water, negative environmental effects, potential to degrade water quality, significant infrastructure requirements
- 3 Does not necessarily gain water or improve water supply management. No significant environmental impacts, does not improve or impair water quality, moderate infrastructure requirements
- 4 Results in some water savings, potential to enhance natural environment, may improve water quality. Few infrastructure requirements
- 5 Results in significant water savings, environmental enhancements, improves water quality. No infrastructure requirements or highly feasible infrastructure requirements.

**Economic**

- 1 Economic impacts are borne solely by the region, without state or federal assistance, and potential for water loss.
- 2 Economic impacts are borne by the region, with minimal outside assistance, and potential for water loss.
- 3 Economic impacts are borne by the region with some state funding of the alternative, and no potential water savings.
- 4 Significant amount of funding will come from state and federal resources. Region will contribute minor portions, and potential for water savings.
- 5 Majority of funding will come from federal and state sources outside the region, with region gaining significant economic benefit, and potential for water savings.

**Social/Cultural**

- 1 Unacceptable to broad range of social groups.
- 2 At least once social group will oppose the alternative.
- 3 Advantages and disadvantages are in equilibrium.
- 4 Generally acceptable to most social groups, some resistance may still occur.
- 5 Acceptable and desirable for most social groups.

**Legal**

- 1 Very difficult change in existing federal/interstate law; high risk that any proposed change to such existing law would not be successful, not in compliance with Compact, permits unacceptable.
- 2 Possible to change law, but difficult due to political opposition; lengthy process to make legal change, impacts on Compact, permits are extensive and may be denied.
- 3 Possible, more routine, less controversial legal change; still may involve complex approval requirement; may involve potentially novel concept, lengthy permitting efforts.
- 4 Minimal legal barriers; local or regulatory change already supported by statute, significant permitting efforts.
- 5 No legal barriers/already occurring; simple if any permitting.