



2004 State Water Plan Implementation Report

Strategies Set Forth in 2003 State Water Plan

Presented to the New Mexico Interstate Stream Commission
Board Room, Middle Rio Grande Conservancy District
Albuquerque, New Mexico
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Active Water Resource Management				
C.2	1	13	The State Engineer will prepare plans consistent with the prior appropriation doctrine, for priority administration of every basin	<ul style="list-style-type: none"> ▪ The Office of the State Engineer (OSE) has prepared plans/schedules for seven critical basins statewide: the San Juan, Nambe-Pojoaque-Tesuque, Gallinas, Upper Chama, Lower Rio Grande, Lower Pecos, and Mimbres basins. These plans/schedules, provided in the form of Gantt charts, are the basis of the agency's Active Water Resource Management (AWRM) initiative. This initiative will put in place the necessary tools to perform priority administration, if required. The lessons learned through AWRM of these seven basins will be used to implement this initiative statewide within all basins. ▪ A comprehensive plan for communicating the AWRM initiative statewide has been prepared and is currently being implemented. Work has already begun on communication strategies for the Rio Gallinas, Rio Chama, Pecos River, Rio Hondo/Rio Peñasco, and Lower Rio Grande areas. ▪ The framework of the OSE's AWRM initiative specifies four specific tasks required to perform AWRM in each basin: (1) establishment of a water master district and water master, (2) water rights abstracting, (3) implementation of measurement and metering, and (4) technical and legal preparation for administration. These four tasks are the focus of the plans/schedules described in Section C.2, Implementation Strategy (IS) 1.
C.2	2	13	The State Engineer will establish water districts and appoint water masters to administer diversions and existing water rights as necessary.	
C.2	6	14	Where appropriate, the State Engineer should include communities and water management entities in water administration matters.	<ul style="list-style-type: none"> ▪ Development of the AWRM Basin Specific Rules and Regulations will include communities and water management entities in water administration matters. Public meetings allow and encourage public comment before the rules are adopted. ▪ The OSE has held many meetings, both public and private, with communities and other entities on various water management/administration issues. Some of the meeting topics include the promulgation of rules and regulations, Indian settlement negotiations, and AWRM.
C.2	7	14	Resources should be allocated to fully implement active water resource management in accordance with the following priority list: <ul style="list-style-type: none"> ◦ where the threat to State administrative authority from failure to perform is most severe; ◦ where threat of interstate conflict is high; ◦ where the economic consequences of lack of ready water markets are high; and ◦ where water conservation will be served. 	Each of the seven basins is assigned a team consisting of an attorney, water master, water resources specialist, hydrologist, Interstate Stream Commission (ISC) staff member, Acequia Liaison where applicable, financial manager, personnel manager, communications manager, database manager, legal manager, and coordinator for State Water Plan (SWP) implementation.
C.9	51	44	The State Engineer will review existing statutes and regulations, propose revisions, and implement authorized revisions to expedite water rights transfers.	The State Engineer is in the process of writing district-specific AWRM regulations for priority administration in the seven high-priority basins and will expedite water right transfers in those districts affected by priority administration. The State Engineer is also in the process of revising existing surface water regulations.
C.2	11	14	The State Engineer will develop a strategy for the coordinated enactment of statutes, promulgation of regulations, and development of policies to achieve efficient, localized water markets.	The Agency has generated rules and regulations for priority administration for the AWRM initiative. The promulgation of these rules and regulations has been completed as of December of 2004. The State Engineer will expedite permit applications in districts affected by priority administration using the appropriate hydrologic models adopted for the district.
C.6	34	29	The OSE/ISC will encourage the development of voluntary water sharing agreements as a preferred way of respecting senior rights and preserving the customs of traditional communities during times of drought.	In conjunction with AWRM and adjudications, voluntary shortage sharing agreements have been reached with users in the Jemez, Nambe-Pojoaque-Tesuque, San Juan, Gallinas, and Mimbres basins. Shortage sharing agreements are encouraged as a method to reduce the necessity for administrative enforcement.
C.2	3	13	The State Engineer should encourage voluntary agreements among users for coping with water shortages, but must be prepared for priority administration of water rights where such voluntary agreements are not reached or if they do not achieve the required result.	<ul style="list-style-type: none"> ▪ The Pecos Consensus Plan and the Settlement Agreement that would implement the Plan provide a mechanism for shortage sharing in addition to ensuring that the State will meet its state line delivery requirements under the Pecos River Compact. ▪ The OSE is negotiating with water users in the Gallinas basin for shortage sharing agreements. ▪ The Jemez adjudication has a mechanism for shortage sharing agreements that are coordinated through the appointed federal water master.

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				<ul style="list-style-type: none"> ▪ The AWRM initiative is intended to be a mechanism to administer priority administration in the absence of a negotiated shortage sharing agreements.
C.9	53	44	The State Engineer will encourage the creation of water banks in areas that are experiencing significant growth and/or that are prone to water supply shortages in order to ensure economic vitality.	<ul style="list-style-type: none"> ▪ An expedited water transferring mechanism is built into the AWRM general rules and regulations. ▪ The Strategic River Water Reserve proposed legislation for this session would provide for the creation of a water banking mechanism. ▪ A water banking mechanism was included in the replacement plans developed for the Elephant Butte Irrigation District (EBID).
C.2	8	14	The State Engineer should consider changes in the present system of domestic well permitting and administration, specifically by limiting or conditioning new domestic well permits to prevent impairment of senior water rights (discussed further under Section C.7).	Legislation to address the present system of domestic well permitting was proposed in 2003 and 2004, but was unsuccessful. The State Engineer is contemplating rule changes or legislation for 2005 to address this issue.
C.2	5	13-14	The Office of the State Engineer should receive funding adequate for the acquisition of the technological and scientific tools necessary for efficient administration and management. The tools include: <ul style="list-style-type: none"> ◦ real-time measuring and metering of all water uses (return flows as well as diversions); ◦ consistent standardized remote sensing technologies; ◦ GIS technologies; ◦ improved surface and ground water models; and ◦ water districts, water masters, and water master manuals. 	<ul style="list-style-type: none"> ▪ Currently there are funds available for some of the tools necessary for administration. U.S. Senator Pete Domenici sponsored a bill during the 108th session of Congress that would have provided \$12 million for measuring and metering and geographic information system (GIS). The bill passed the Senate, but did not pass the House. Senator Domenici will attempt to resurrect the bill during 109th session of Congress. ▪ The OSE's budget request for FY 2006 includes requests for funding for three of the five water masters needed by the Agency. ▪ Federal funds have been appropriated for Aamodt negotiations. ▪ The agency budget is being used to promote GIS technology and improved water models where consistent with other agency efforts.
C.13	68	52	The OSE/ISC and the Water Trust Board will establish and fund metering and measuring programs beginning with critical areas where active water resource management is imperative.	<ul style="list-style-type: none"> ▪ Through the ISC, the EBID is receiving funding for measuring and metering projects. ▪ The OSE/ISC is continuing to work with the New Mexico congressional delegation and Bureau of Reclamation (Water 2025) to encourage funding for measuring and metering in individual districts. ▪ Under AWRM, water master districts will require measuring and metering devices sufficient to manage the water resources within that district.
D.3	84	68	The State Engineer and the ISC will allocate available resources to improve measuring and metering in accordance with the [priority list on page 68 of the SWP document].	<ul style="list-style-type: none"> ▪ AWRM has been implemented. ▪ New deep monitoring wells to assess impacts from municipal wells have been completed. ▪ A project to document locations and obtain global positioning system (GPS) measurements for monitoring wells in the statewide network has been implemented. ▪ The ISC/OSE recommended monitoring requirements for pending water rights applications. ▪ A proposal to the Governor's Finance Council includes a \$10 million request for measuring and metering all water uses in the state.
D.3	85	68	The OSE/ISC will provide information and details on the prioritization from the above list and create schedules for measurement and metering projects. (See Appendix F, which sets out projected schedules and timelines with priorities for measurement and metering of water uses.)	GANTT schedules have been created and have been updated. The agency is on schedule with the GANTT charts developed for the State Water Plan. The AWRM schedules provide detail in this regard.
D.3	86	68	The OSE/ISC will provide estimated completion dates for measurement and metering of water uses, based on existing resources (see Appendix F).	GANTT schedules for AWRM, specifically pertaining to scheduled dates for the installation and monitoring of gauges for measuring and metering purposes, have been created and updated.
D.3	87	68	The OSE/ISC will periodically provide Gantt charts to update the public on progress towards completion of the measuring and metering of water uses.	The measurement and metering schedules (GANTT charts) for surface water have been completed. Due to lack of staff and financial resources, groundwater schedules have not been prepared.
Conservation				
C.5	20	25	OSE/ISC will continue its program of public water conservation	<ul style="list-style-type: none"> ▪ Through efforts of the New Mexico Drought Task Force (DTF), the OSE/ISC is continuing to provide leadership in developing a

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			education directed at users in all water use sectors and coordinated with local, federal, and Tribal governments.	drought preparedness and relief package that will address funding needs for water conservation education and technical assistance. ... <ul style="list-style-type: none"> ▪ The Drinking Water Work Group (DWWG) of the DTF has developed a <i>Framework for a Comprehensive Statewide Municipal and Industrial Water Conservation Program (DWWG Framework)</i>. It was presented to the Interim Water and Natural Resources Committee and should serve as a foundation for funding and other municipal and industrial conservation initiatives. ▪ The OSE's Water Use and Conservation Bureau (WU&C) is continuing their public water conservation education program in spite of dramatic losses in funding from the Bureau of Reclamation. The program developed a middle and high school educational curriculum that includes the training of teachers in its use. In 2004 WU&C added an elementary education curriculum on water conservation to the conservation education program and, with the funding assistance of New Mexico State University, created a new publication geared toward adults. This publication focuses on defining the laws allowing residential gray water use for various domestic uses. A majority of the funds to continue the school conservation education programs expire on or before June 2005.
C.5	21	25	OSE/ISC will initiate a continuing program of demonstration projects to showcase and promote water conservation techniques and technologies.	<ul style="list-style-type: none"> ▪ The DWWG is in the process of identifying opportunities to demonstrate municipal and industrial water conservation techniques and technologies. The Agricultural Sector Work Group (ASWG), also a subgroup of the DTF, will develop demonstration projects based on the outcome of the workshop described under C.5, IS 20. ▪ OSE involvement was discontinued due to lack of funding. ▪ Both the Bureau of Reclamation and the Natural Resource Conservation Service (NRCS) has historically provided funding to WU&C for agricultural and municipal water conservation demonstration projects. That funding was halted for 2005.
C.5	30	26	OSE/ISC will publicize the legislature's 2003 enactment providing that improved irrigation methods resulting in the conservation of water shall not affect an owner's water rights.	Although this legislation has not been separately publicized, the intent of the provision is explained routinely in discussions with water users. Integration of the information into relevant discussions appears to be an effective method of communicating the intent of this strategy.
C.6	36	29	The OSE/ISC will disseminate drought-related educational materials through an active OSE program as well as through water providers.	<ul style="list-style-type: none"> ▪ WU&C provides this service for conservation materials; with additional funds and a half-time staff position, the bureau could expand its efforts to include drought materials. ▪ WU&C staff, through their work on the DWWG of the DTF, have been involved in the creation and dissemination of drought-related educational materials. In 2004 the DWWG distributed a brochure and conducted a set of workshops to help prepare municipal water suppliers for drought conditions. The DWWG partnered with the Rural Water Association of New Mexico and the Water Conservation Alliance in this effort.
C.5	22	25	OSE/ISC will establish an ongoing program of technical assistance to support the development and implementation of water conservation programs by governments, water providers, and other water users.	<ul style="list-style-type: none"> ▪ The agencies provide helpful information when requested, but due to lack of resources, pursue no proactive technical assistance effort. ▪ Although water conservation technical assistance for governments, water providers, and other water users is a very high priority of the WU&C Bureau, no funding exists to implement this priority. The OSE/ISC's 2006 budget includes a request for technical assistance funds, but the budget's status was not available at reporting time.
C.5	23	25	The ISC will encourage the inclusion in all regional and local water plans of conservation measures based on best practices developed for local hydrologic conditions, legal constraints, and water uses.	The ISC Regional Water Planning Handbook requires consideration of water conservation as one of the alternatives for meeting future water demand. The ISC continues to work with regions to complete regional planning throughout the state.
C.5	25	25	In prioritizing funding requests for infrastructure and conservation projects, State funding agencies should consider the net increase in usable water resources that a proposed project would produce.	This criterion was used in the recent distribution of the Governor's Innovation Fund awards. There is an ongoing review of infrastructure finance throughout the state. Whether this criterion is used will be determined within this review.
C.3	12	18	OSE/ISC will undertake joint efforts with the Environment Department to improve communication and coordination between those agencies, in recognition of the fact that water quality and quantity are intrinsically linked.	OSE/ISC and NMED staff have been meeting on a monthly basis for a year and a half. These meetings have led to collaboration in a host of areas including water quality, joint legislation planning, water system issues, water project funding, litigation preparation, subdivision review and development issues, and agency cross training.
Coordination and Collaboration				
C.10	54	46	The State Engineer; Secretaries of the Environment Department, Energy Minerals and Natural Resources Department, and Agriculture	<ul style="list-style-type: none"> ▪ Strict quarterly meetings have not been adhered to, but collaborative and information-building relationships with various agencies have continued to be strengthened through ISC's work in the following groups: Endangered Species Act (ESA) Collaborative, Watershed

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			Department; and Directors of the Interstate Stream Commission and Game and Fish Commission will meet on a quarterly basis to discuss and facilitate issues including, but not limited to, endangered species, watershed management, water quality, water planning, water project development, development of new sources of water supply, management of State-owned water resources, and interstate stream compact compliance.	Group, Brackish Water Task Force, Drinking Water Work Group, OSE/NMED Collaborative. <ul style="list-style-type: none"> ▪ Whether the agency heads need to meet quarterly is questionable, given that various groups with multi-agency representation are addressing these issues: <ul style="list-style-type: none"> ◦ ESA: Wildlife and Wildfire Work Group (WWWG) ◦ Watershed management: Two current initiatives include staff, and in some cases agency heads, of all the agencies listed within the strategy language. ◦ Water quality: OSE/NMED; there is a water quality component to the watershed management activities ◦ Water planning: OSE/NMED; watershed initiatives ◦ Water project development/Development of new sources of water supply: The Water Trust Board (WTB), Governor's Finance Council, Water Development Work Group (WDWG), ASWG, and DWWG all address components of this. The WTB includes the heads of all these agencies. ◦ Management of state-owned water resources such as Eagle Nest Lake and Ute Reservoir: Interstate compact complianceThe WTB meets once a month and includes representatives from the OSE, New Mexico Commission on Indian Affairs, New Mexico Department of Game and Fish (NMDG&F), New Mexico Finance Authority (NMFA), Energy Minerals and Natural Resources Department (EMNRD), New Mexico Department of Agriculture, and NMED. ▪ Water planning regions in the process of developing regional water plans meet at least quarterly to discuss these and more local issues.
C.3	13	18	OSE/ISC, in cooperation with the Environment Department, will continue existing water quantity and water quality data collection and management efforts, and will expand water resource analysis programs such as geologic and aquifer mapping projects.	<ul style="list-style-type: none"> ▪ The OSE and NMED share available GIS coverage's, specifically relating to aquifer depth analysis and geologic substrate data for the purpose of discovering potential groundwater contamination. ▪ The OSE and NMED Drinking Water Bureau share data related to the availability of water rights for the more than 640 public water systems in New Mexico.
C.3	14	18	OSE/ISC, in coordination with water users, will develop prioritized measurement and monitoring plans to better quantify the quantity and quality of available water supplies, and water withdrawals, depletions and returns.	The ISC has entered into and is completing agreements with the EBID and Middle Rio Grande Conservancy District (MRGCD), totaling almost \$2 million over the past four years, to aid each district in implementing prioritized irrigation system measurement and metering improvements. In part because of these efforts, nearly all river diversions and return flows within the areas served by the two districts are now metered, and the resulting data are publicly available on the internet. Additional studies to evaluate improvements that would be needed to effectively implement AWRM on the lower Rio Grande and the Rio Chama, to install deep monitoring wells along the border with Texas, and to aid the OSE in constructing a ground water model for use in administration of water rights and water in the Lower Rio Grande have been initiated.
C.7	41	34	The OSE/ISC will promote improved water availability and water quality assessments by: <ul style="list-style-type: none"> ◦ collaborating with federal, State, and local entities to improve communication, data sharing, development of study programs, and to acquire funding for water availability studies; ◦ improving measuring, metering and other data collection activities; ◦ collaborating with water research entities to develop water resource models; and ◦ assessing measures to improve water resource quantifications by the private sector to better address site-specific water availability and quality issues. 	Collaboration efforts included: <ul style="list-style-type: none"> ◦ Continued collaboration with the USGS and New Mexico Bureau of Geology and Minerals. ◦ Initiation of the Brackish Water Task Force. ◦ Collaboration with water resource professionals in the development of models of the Taos and Rio Grande regions. ◦ Meeting(s) with Los Alamos National Laboratory (LANL) to discuss data sharing opportunities. ◦ Collaboration with NMED staff on water resource quantification, mapping and data sharing.
D.3	89	69	Coordination with other State agencies and institutions in the integration and dissemination of water use and water supply data.	Various OSE/ISC Bureaus have contracts with the U.S. Geological Survey (USGS) and NRCS for the collection, integration and dissemination of water supply data. Hydrology is involved with NMED as part of the NMED Collaborative Group-

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C.5	24	25	The OSE/ISC will encourage local governments and water providers to develop and implement comprehensive water conservation plans and will recommend that a water conservation plan be required in any application for State financial assistance for water development infrastructure.	<ul style="list-style-type: none"> ▪ NMSA 72-14-3.2 requires drinking water providers that produce more than 500 acre-feet per year to develop conservation plans or risk ineligibility for state funding assistance. The OSE will assist in the development of such plans as resources allow. ▪ The WTB and the New Mexico Finance Authority (NMFA) are asking that local water conservation plans accompany applications for financial assistance. ▪ DFA's Local Government Division encourages local water conservation plans by giving more points on Community Development Block Grant (CDBG) applications. Entities are judged on the following criteria: having passed a water conservation ordinance; proof of the ordinance's implementation in two separate ways; and having passed a drought contingency plan.
C.6	35	29	The OSE/ISC will encourage local governments to develop and implement comprehensive conservation and drought management plans.	
C.7	38	34	The State Engineer will work with NMED to encourage local governments to utilize Zoning and Land Use regulation to assure that development is consistent with available water supplies, conservation and water quality policies, and does not adversely impact the State's water resources.	<ul style="list-style-type: none"> ▪ The working groups of the DTF have recommended zoning and ordinance changes. ▪ Changes in land use law require collaboration with local government associations such as the Association of Counties and the Municipal League. ▪ Many of the water planning regions have made land use control recommendations. ▪ The Subdivision Review Section of WU&C performs some of these tasks, but no rules or regulations are in place. Other aspects are discussed and recommended by the DTF. ▪ The DWWG plans to review existing statutes for water, conservation, and drought planning to determine whether they should be combined into one statute that calls for more comprehensive municipal and industrial water planning, with a stronger emphasis on system efficiency, conservation, etc., and will develop model ordinances and zoning codes.
C.7	42	34-35	The OSE/ISC should respect, preserve and support existing local zoning, planning and subdivision authority and collaborate with local governments to promote [the list on page 35 of the SWP document.]	
C.8	48	39	The OSE/ISC and Water Trust Board in collaboration with NMED and EMNRD will: <ul style="list-style-type: none"> ◦ support watershed restoration activities to increase available surface water supplies and improve or protect water quality; and ◦ engage in and provide leadership for collaborative watershed restoration efforts that have a high potential to increase the water supply and decrease fire threat but that also include re-vegetation and restoration of ecosystem function. 	
C.8	49	40	The OSE/ISC in collaboration with the State's national labs and research institutions, will research, document and conduct technical studies to evaluate the change in surface water yield from watershed restoration projects.	<ul style="list-style-type: none"> ▪ The OSE/ISC is involved in two initiatives addressing watersheds: <ul style="list-style-type: none"> ◦ The Forest and Watershed Health Plan, due to go to the Governor in December 2004, will recommend a comprehensive set of guiding principles and recommendations for watershed management that include monitoring, remediation, long-term management, improved coordination among state and federal agencies, increased state and federal funding, and a new state management office and stakeholder group to direct watershed projects. ◦ A Work Group established by HB2 (January 2004) is charged with creating plans, templates and protocols for watershed treatment, monitoring, remediation, and long-term management and maintenance. The subcommittee on monitoring, which includes both OSE and ISC staff, has incorporated evapotranspiration measuring into the monitoring plan to quantify water yield. ▪ Watershed restoration activities have been identified in the regional water plans of 13 of the 16 regions. In certain regional water plans, watershed restoration is looked to for surface water increases. For instance, the Pecos River Valley has identified surface water yield from watershed restoration.
C.10	58	47	The OSE/ISC, NMED, and EMNRD will coordinate with federal agencies to leverage available State funds and to maximize the effectiveness of riparian and watershed vegetation management projects.	
C.9	52	44	The State Engineer will encourage creation of water banks within acequias to promote the customs, culture, environment, and economic health and stability of the associated communities.	Sample bylaws are being provided to acequias that have asked the New Mexico Acequia Association for assistance to implement water banking.
C.10	60	47	The OSE/ISC and NMED will meet with individual acequias, mutual domestic water users, water cooperatives, water and sanitation districts, irrigation districts, and conservancy districts as needed to address issues of local concern.	<ul style="list-style-type: none"> ▪ Meetings with agency personnel and specific entities, groups, and organizations have occurred routinely where a desire or need was expressed. ▪ The OSE Acequia Liaison currently meets with acequia associations and members on a number of issues including water rights, easements, governance, and AWRM. ▪ Through the agency's development of general rules and regulations for AWRM, each of these groups will be provided the opportunity to comment.

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C.7	40	34	When new development occurs on land to which valid water rights are appurtenant, the State Engineer should promote the use of those water rights for the new development.	This strategy is currently achieved through OSE's water rights application process.
C.10	55	46	The OSE/ISC and NMED will strive to coordinate water quantity and water quality efforts, including the promulgation of more effective Subdivision Development Regulations and to ensure that water rights transfers do not negatively impact water quality protection efforts.	WU&C staff work with NMED on collaborative efforts. No major assignments have been completed regarding collaboration on subdivision review.
C.12	64	50	The OSE/ISC will encourage water supply purveyors, including local governments, privately owned public utilities, associations, cooperatives, irrigation districts and acequias, to notify the OSE/ISC that they are developing water plans.	<ul style="list-style-type: none"> ▪ Water suppliers are encouraged to do this, but staff time is insufficient to follow up. ▪ Quay County recently completed a 40-year plan and did consult with ISC planning staff for assistance and format. ▪ Santa Rosa has a plan in the development stages. ▪ ISC planning staff developed a matrix of New Mexico communities that have such plans. Most municipalities and counties in New Mexico do not have 40-year plans.
C.13	70	52-53	The ISC and Water Trust Board will prioritize and fund water related management projects that will result in widespread and long-term public benefit, including [those listed on pages 52-53 of the SWP document].	Of the 16 Regional Water Planning areas, 11 have recommend implementation of large-scale projects.
C.13	71	53	OSE/ISC will coordinate with the Water Trust Board to <ul style="list-style-type: none"> ◦ promote the establishment of new dedicated funding sources to flow into the Water Project Fund for the Water Trust Board to fund water projects statewide, including [those listed on page 53]; ◦ establish a centralized review process for funding water projects statewide; ◦ increase funding for capacity development at the NMED Drinking Water Bureau; ◦ establish a dedicated fund from the water loss, leak detection and repair program by setting aside a percentage of recovered revenue from each system serviced; ◦ encourage rates for water systems that are based on cost of service principles; ◦ encourage county and local governments to research the benefits of impact fees for new water infrastructure; and ◦ encourage research on alternative funding sources derived from [the list on page 53]. 	<ul style="list-style-type: none"> ▪ The State Engineer serves as the Chairman of the Water Trust Board ▪ The State Engineer serves as a member on the Governor's Finance Council ▪ The State Engineer participates on the Governor's Infrastructure Finance Team ▪ All efforts are being coordinated to meet implementation strategies. Some efforts include: <ul style="list-style-type: none"> ◦ establishing a technical team to evaluate and recommend regional projects and regional solutions for public water systems; ◦ ensuring hydrologic and fiscal sustainability; ◦ improving system efficiencies through conservation measures; ◦ a media campaign to promote public awareness ; and, ◦ initiating a rate analysis process and restructuring of rates
C.13	72	53	The OSE/ISC and the Water Trust Board shall consult with the New Mexico congressional delegation to assist in the prioritization of water projects for federal funding.	<ul style="list-style-type: none"> ▪ OSE staff is working on a proposal to the Governor's Finance Council to revise water project capital planning. The intent is that the revised water project priorities in this proposal will be used by the congressional delegation as well and that the state will thereby create a list of priority water projects that it wants funded each year by Congress. ▪ The State Engineer and the ISC Director frequently communicate with the New Mexico congressional delegation regarding water issues, including the prioritization of federal funding requests.
D.4	92	71	The State Engineer will coordinate with NMED and other State agencies to establish criteria for the appropriate disposition of unused wells that threaten public health and safety or water quality.	The NMED-OSE Collaborative has discussed the need for establishing criteria for the disposition of unused wells, but has not yet proposed any statutory language nor devoted considerable staff time.

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D.4	93	71	The State Engineer will coordinate with NMED in the review of existing regulations, and the development and promulgation of new regulations that address wellhead protection and capping of abandoned wells.	The NMED-OSE Collaborative are reviewing mechanisms by which to strengthen wellhead protection.
Threatened or Endangered Species				
C.2	4	13	The ISC should actively protect the State's interests in water related Endangered Species Act Litigation to ensure that federal demands for water for threatened and endangered species do not compromise State water law, rights and interests.	<ul style="list-style-type: none"> ISC Rio Grande Basin staff focused their efforts on compliance with the USFWS 2003 Biological Opinion (compliance was maintained in 2004), participation in the ongoing <i>Minnow v. Keys</i> litigation, discussions with Texas, Colorado, and the federal government over potential ESA issues at Elephant Butte Reservoir, and technical work to develop better science (food and habitat availability for the Rio Grande silvery minnow, river seepage runs, general hydrogeologic investigations, and development and implementation of surface and ground water models). Staff have also been actively engaged in protecting the State's water interests on the Pecos and Rio Grande as joint lead agencies in the development of several Environmental Impact Statements (EISs) (e.g., the Upper Rio Grande Water Operations Review (URGWOPS) and EIS, the Middle Rio Grande [MRG] ESA Collaborative Program EIS). ISC intervened on ESA-related litigation in the Pecos Basin to represent and protect the State's interests. This intervention resulted in the case being dismissed.
C.8	44	39	The OSE/ISC will provide State law-based method(s) for the federal Government and others to secure water and thus avoid seizure of irrigation district, conservancy district, Pueblo, municipal, industrial or individual water right holder water.	<ul style="list-style-type: none"> In 2003, ISC Pecos River Bureau staff assisted the Federal government in obtaining water rights for ESA purposes following established State law-based methods. The ISC has entered into two agreements with the federal government on the Rio Grande (the conservation water agreement and the emergency drought water agreement) to provide water for the federal government to meet its ESA requirements in a manner that complies with state law and the Compact while protecting state water users from appropriation of their water. These agreements have been used, in part, since 2001 to maintain federal compliance with the 2003 U.S. Fish and Wildlife Service (USFWS) biological opinion regarding MRG water management and to provide water to farmers in the middle and lower Rio Grande, the citizens of Santa Fe, and reservoir recreationists at Elephant Butte Reservoir. The ISC has actively engaged the federal government to ensure that habitat restoration efforts conducted by the federal government do not result in additional depletions of water. The Rio Grande Bureau has been successful in obtaining agreement from the MRG ESA Collaborative Program that its projects will not increase depletions or that Program depletions will be offset in a manner that complies with state law.
C.8	46	39	The ISC will support the OSE in developing and implementing mechanisms to ensure water secured pursuant to this policy will flow to the area of use.	<ul style="list-style-type: none"> The ISC is actively supporting the OSE's AWRM initiative. Legislation was introduced to the 2003-04 New Mexico Legislature to create a Strategic River Reserve, which would establish a methodology for securing both stored water and water rights, and provide the funding necessary to carry it out. The legislation was supported by the OSE/ISC, and during the legislative process the legislation was significantly improved. Though the bill had strong support by both house and senate committees, it did not make it through the legislature due to timing constraints. The same refined bill will be re-introduced during the 2005 session and has the support of the Legislature's Interim Natural Resources Committee.
C.8	47	39	The OSE/ISC will create mechanisms for strategic river reserves to provide water for high priority uses.	<ul style="list-style-type: none"> Pecos River Bureau staff have developed an agreement that enables water to be passed through the last dam on the river to its destined area of use, in this case, delivery to the state line.
C.8	43	38-39	The ISC will coordinate with other State agencies to engage in and provide leadership for collaborative program and other efforts to protect and improve the status of Endangered Species Act listed (threatened or endangered) species, and potentially listed species, while simultaneously protecting existing and future water uses. The involved agencies will do so by implementing [the substrategies on pages 38 and 39 of the SWP document].	<ul style="list-style-type: none"> Through the MRG ESA Collaborative Program, the ISC Rio Grande Bureau has worked and is working with the New Mexico Attorney General's office, NMDG&F, NMDA, and numerous other entities including the Pueblos of Isleta and Sandia to implement projects that aid listed species while protecting current and future uses of state water. This collaborative effort has secured more than \$31 million of federal funds over the past four years for use in protecting the silvery minnow and southwestern willow flycatcher, and the State, through the ISC and WTB, has committed more than \$6 million to the work. The state efforts have been used to develop a habitat restoration plan for the listed species in the MRG, construct and operate, in part, the City of Albuquerque naturalized refugia for the silvery minnow, rescue minnows from drying stretches of the Rio Grande, and improve water management within the MRG.

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				<p>Funds are committed to construct and operate another silvery minnow refugium, construct silvery minnow habitat in the Albuquerque area, install automated irrigation system gates, and improve our understanding of the fish's habitat and food needs. The Rio Grande Bureau is working with the other state agencies and program signatories to develop federal authorizing legislation for the MRG ESA Collaborative Program.</p> <ul style="list-style-type: none"> ▪ The WWWG of the DTF has a subcommittee that is preparing a list of species at risk, along with habitat requirements, that can be used to target watershed and other projects to protect habitat so that these species do not get listed. ▪ Four invertebrate species in the Roswell area are proposed for ESA listing by 2005. ISC is working collaboratively with the USFWS and NMDG&F to develop a Conservation Plan that will accurately portray threats from resource management activities, including groundwater pumping and oil and gas development, to these species and possibly preclude listing altogether by addressing those threats. ▪ ISC is conducting various biological studies on the Pecos River to better understand habitat needs of the federally endangered Pecos bluntnose shiner to find solutions to ESA needs that will allow current water uses to continue consistent with current state and federal law. ▪ The ISC is working on two separate EISs in the Pecos basin: (1) re-operation of Sumner Dam for the benefit of the Pecos blunt-nosed shiner and (2) the Roswell area conservation plan mentioned above. ▪ The ISC and its contractors have completed a fish survey in the Canadian basin to document the status of the Arkansas River shiner. ▪ The ISC is part of a federally authorized program in the San Juan Basin to recover threatened and endangered species. ▪ The ISC is represented on the Coordination Committee of the federally authorized San Juan River Basin Recovery Implementation Program. The Program is designed to help recover the Colorado pike minnow and the razorback sucker while allowing water development to continue in the San Juan Basin. ▪ The ISC is developing a collaborative effort with other stakeholders that will allow the state to develop water rights on the Gila River, while protecting the present ecological functions and processes of the Gila and San Francisco Rivers and the species that depend upon them, including a number federally listed species.
C.8	45	39	<p>The OSE/ISC will work with water users to improve irrigation efficiency and/or implement forbearance or water banks/markets such that wet water can be leased or purchased and diversion rates can be reduced to help meet river flow targets for listed species while still providing the appropriate amount of water to valid water right holders.</p>	<ul style="list-style-type: none"> ▪ As discussed in IS 14, agreements with the EBID and MRGCD have resulted in metering and measuring improvements. The ISC and WTB have also provided funding to EBID and MRGCD for the installation of automated gates to improve river and irrigation system management. ▪ The ISC Rio Grande Bureau has begun projects to evaluate whether irrigation forbearance could work in the MRG to meet numerous new demands and protect state water rights holders from appropriation of their water. ▪ The ISC is working with federal agencies, as well as internally, to develop and implement models that will help in managing the MRG system to meet ESA and water right demands while assessing impacts on Rio Grande Compact deliveries. ▪ Strategic River Reserve legislation will be reintroduced in 2005 (it did not pass in 2004). If enacted, this would provide an additional mechanism for leasing or purchasing water for ESA purposes.
C.10	59	47	<p>The ISC will continue its efforts to represent the State as a "joint lead" in the preparation of federally required National Environmental Policy Act (NEPA) compliance for Endangered Species Act projects and other water management activities.</p>	<ul style="list-style-type: none"> ▪ The ISC has commissioned a fish survey for the federally endangered Arkansas River shiner. This survey took place between Ute Reservoir and the Texas state line on the Canadian River. ▪ The ISC is currently joint lead on several important EISs around the state: Pecos River, Eastern New Mexico Rural Water System, Upper Rio Grande Water Operations Review, Gila River, MRG ESA Collaborative Program. One Pecos River EIS addresses ESA compliance requirements, analyzing the impacts of re-operating Fort Sumner Dam to benefit the federally threatened Pecos bluntnose shiner while maintaining current uses of water consistent with state and federal law. The other satisfies the environmental compliance component of the Pecos River Settlement, enabling the State to implement a long-term Compact compliance plan. ▪ Rio Grande Bureau staff are involved almost daily in protecting the state's water interests in various National Environmental Policy Act (NEPA) projects, including the URGWOPS and EIS (which is evaluating how the entire Rio Grande reservoir system can be better operated to meet existing and new demands), the MRG ESA Collaborative Program EIS (needed before federal authorizing legislation

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				<p>can be enacted), environmental assessments for planned habitat restoration projects in the MRG, the Elephant Butte temporary pilot channel, and hydrogeological investigations in which federal funds are involved. In addition, Rio Grande Bureau staff are implementing projects and developing models that provide best available science to the NEPA investigations so that the impact of a particular federal proposal on state water users and Compact deliveries can be better addressed (e.g., San Acacia surface/ground water [SW/GW] model, San Acacia SW/GW study, URGWOPS).</p> <ul style="list-style-type: none"> ▪ The ISC is a cooperating agency, with the Bureau of Reclamation, in the Navajo Dam EIS that analyses the impacts of re-operating Navajo Dam to implement flow recommendations to benefit endangered fish in the San Juan River. ▪ The ISC is monitoring the population of Arkansas River shiner (federally listed as threatened) on the Canadian River below Ute Dam, to provide baseline data to support future NEPA compliance for implementation of the Eastern New Mexico Rural Water Project (ENMRWP), which will develop the State's water for the benefit of communities in eastern New Mexico. ▪ The ISC is the proposed joint lead, with the Bureau of Reclamation, in the ENMRWP EIS.
Interstate Compacts				
C.2	9	14	The ISC and the State Engineer should continue to vigorously pursue and enforce compliance with all interstate compacts both within the state and by the other compact signatories.	<ul style="list-style-type: none"> ▪ The ISC has staff devoted to the eight interstate compacts that the state of New Mexico must adhere to: the Colorado River, Upper Colorado River Basin, La Plata River, Animas-La Plata Project, Rio Grande, Costilla Creek, Pecos River, and the Canadian River Compacts . ▪ The ISC is vigorously enforcing all compacts to assure that New Mexico will maximize the State's benefits while still meeting compact obligations. Meetings occur on a regular basis with all compact signatory states. ▪ ISC staff have actively engaged staff of the upstream and downstream Compact states to ensure Compact compliance. Activities include traveling to the other states to review and evaluate water management in those states, actively engaging federal agencies on Compact-related issues, and actively engaging in discussions with neighboring states on interstate water issues. ▪ ISC staff are heavily involved in AWRM implementation on the San Juan, Rio Chama, Pecos, and Lower Rio Grande, to ensure New Mexico's ability to manage for Compact deliveries, if and when necessary.
C.2	10	14	The ISC will plan, design, and implement projects to aid the State in meeting its interstate compact delivery requirements.	<ul style="list-style-type: none"> ▪ The Rio Grande Bureau entered into cooperative agreements with the U.S. Bureau of Reclamation and contracts with a private contractor for projects that reduce depletions and maintain river delivery efficiencies. Projects include constructing and maintaining 18 miles of river channel through the exposed Elephant Butte delta, which saved between 12,000 and 20,000 acre-feet of water, and controlling vegetation on Elephant Butte and Caballo Reservoirs to reduce water loss and maintain recreation areas. ▪ A sediment survey was completed at Ute Reservoir to comply with the 1994 Supreme Court Decree. This survey will determine more accurately how much water we will be able to store in Ute Reservoir. ▪ The ISC Pecos River Bureau is involved in several projects that have required extensive planning and design to augment flows at the state line in order to continue to comply with Compact terms and to implement a plan for long-term Compact compliance, protecting the State's abilities to manage its water resources.
Public Outreach				
C.9	50	44	The State Engineer will promote effective advertisement of water right transfer applications to allow existing water right owners to protect their water rights.	Currently, under NMSA 72-5-4, an individual applying for a surface water right transfer must, at the cost of the applicant, publicize their application in a newspaper of general circulation within the stream system once a week for three consecutive weeks. The same is true for ground water transfers, under Article 2-7, page 13, in the 1995 Rules and Regulations of Groundwater. Both surface and ground water transfer notices must include the place of transfer, the location of the water proposed to be transferred, the amount of water, the purpose of its use, the name and address of the applicant, and the time when the application will be taken up by the OSE for consideration. In addition to the publicizing required by 72-5-4 and Article 2-7, OSE publicizes the water rights transfer information on its website.
F	97	76	The OSE/ISC and the Water Trust Board will continue public outreach and education efforts to ensure public involvement in the State water planning process.	<ul style="list-style-type: none"> ▪ The ISC continues its efforts to complete regional water plans for the entire state. For each such plan extensive public outreach and education are required as part of process specified by the regional water planning template. Public outreach and education continues for regions with completed plans as implementation of those plans in undertaken. ▪ The OSE/ISC undertake public outreach and education efforts around the state to promote agency initiatives on an ad-hoc basis.

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				<ul style="list-style-type: none"> ▪ WU&C provides conservation materials for public education and outreach; with additional funds and a half-time staff position, the bureau could expand its efforts to include public involvement in water planning.
F	98	76	<p>The OSE/ISC will strengthen its outreach and education efforts to all New Mexicans regarding water issues. This process will include dissemination of information related to the following topics:</p> <ul style="list-style-type: none"> ◦ New Mexico water law; ◦ Active Water Resource Management § Measuring; ◦ § Metering; and ◦ § Markets; ◦ forfeiture and abandonment; ◦ conservation; ◦ interstate compacts; ◦ endangered and threatened species; ◦ land management; ◦ conjunctive management; ◦ additional sources; and ◦ water rights adjudications 	<ul style="list-style-type: none"> ▪ The ISC successfully mediated a consensual agreement for how to share Eagle Nest Reservoir water among those users who have rights to it. This agreement ends the nearly 20 years of litigation that has surrounding the management of water at the reservoir. ▪ The 2004-2005 OSE/ISC Communication Plan, to be implemented by the Public Information Office, will continue to make proactive strides, with comprehensive targeted communication strategies on the following issues: the AWRM initiative, the Proposed Navajo Settlement, the Proposed Aamodt Settlement, the Proposed Gila Settlement as well as water law, conservation, adjudications, and other issues on the list. ▪ ISC outreach includes its participation in the Lower Pecos River Basin Committee. ▪ Where Federal funds are used for a project, NEPA requires public outreach and consideration of public input on the proposed project. ▪ OSE/ISC staff routinely give presentations to stakeholder and interest groups regarding a wide variety of water management issues.
State				
C.5	26	25	The State should create a long-term source for funding water conservation efforts and infrastructure.	OSE staff is working on proposal to the Governor's Finance Council for a several million dollar conservation initiative that would include a major media campaign, technical assistance for water conservation planning, and conservation infrastructure funding for all sectors.
C.5	27	25	The State should consider providing tax, interest rate, cost sharing, rebates, or other economic incentives to promote water conservation or re-use.	<ul style="list-style-type: none"> ▪ Economic incentives are being generally discussed, but any formal effort to implement such incentives would require additional resources. ▪ The DWWG Framework includes proposals for incentives for municipal and industrial water conservation. ASWG will identify obstacles and opportunities, and will include a workshop to generate recommendations for incentives for agricultural water conservation.
C.5	28	26	The State should consider providing economic incentives, including low interest loans, for agricultural water users to implement best management practices to maximize conservation and efficient water use.	Some economic incentives for agriculture conservation are available through the ISC reloan program. The DTF's ASWG is discussing how to encourage agricultural water conservation.
C.6	31	29	The State's Drought Task Force will operate continuously and actively plan for drought emergencies.	The proposals in the DWWG Framework are designed to prevent drinking water emergencies related to drought. This is also the case for the Water Infrastructure Technical Team's (WITT's) regional clustering program.
C.6	33	29	<p>The State should fully fund the activities of the Drought Task Force Strike Team and Work Groups including:</p> <ul style="list-style-type: none"> ◦ the Strike Team that responds to drinking water emergencies and assists with drought mitigation measures; ◦ the Agricultural Sector Work Group's water conservation studies and workshops; ◦ the Drinking Water Work Group's regional collaboration project; 	Currently there is no State funding for the DTF. Consequently, its work groups' projects are either unfunded or are being funded piecemeal by grants from federal agencies. The Drought Summits in March 2003 were both funded entirely by other agencies. The Strike Team no longer exists.

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			<ul style="list-style-type: none"> ◦ the Wildlife and Wildfire Work Group's mapping of species at risk and aquifer recharge locations; and ◦ the Water Development Work Group's brackish water mapping and small scale desalination workshops. 	
C.6	37	30	In prioritizing funding requests for infrastructure and conservation projects, State funding agencies should consider the potential for proposed projects to reduce drought impacts on the public welfare.	NMSA 72-14-3.2 requires drinking water providers that produce more than 500 acre-feet per year to develop conservation plans or risk ineligibility for state funding assistance. The OSE will assist in the development of such plans as resources allow.
C.5	29	26	The State should consider providing economic or other incentives for domestic well users to retire their wells and connect into existing public water supply systems.	OSE is currently working with the Mutual Domestic Water Consumers Association to develop incentives for domestic well users to tie into existing public water supply systems.
C.7	39	34	Where water availability is limited, the State will study the potential for development of new water supplies.	<ul style="list-style-type: none"> ▪ Funds have been applied to characterize the availability of potential deep sources of supply in the Santa Fe area. ▪ Funds have been encumbered to drill a deep exploration well below the Ogallala Aquifer in Lea County to explore for additional supplies. ▪ ISC is following up on various legislative memorials that direct the agency to look at the availability of saline water supplies in southwestern New Mexico. State funds have been appropriated for such research in the Tularosa basin. ▪ The DTF's WDWG sponsored a workshop, funded by the Bureau of Reclamation, on saline water resources in January 2004. Water professionals and researchers from around the state were invited to help identify locations of brackish water resources. The workshop participants looked at areas within the state where aquifer characterization of saline water sources has been initiated. A Brackish Water Task Force then identified eight areas where the brackish resources overlapped with anticipated water shortages. These eight areas were identified for further aquifer characterization studies and project development planning. ▪ WITT is working with the Governor's Finance Council to "cluster" water systems to increase efficiency. OSE staff are working with the Governor's Infrastructure Finance Team on a proposal for funding water development projects around the state (desalination, wastewater treatment, produced water, and aquifer storage and recovery). The WDWG is assisting with identifying appropriate locations for projects, and research and development needs for project implementation.
C.13	66	52	The Water Trust Board will prioritize and fund regionally significant projects, especially large infrastructure projects associated with new water supply development, Indian water rights settlements, and regional water and wastewater systems that improve services, operations, and economies of scale.	<ul style="list-style-type: none"> ▪ OSE staff has been assisting with a Governor's Finance Council proposal that would include all of this. ▪ The following water planning regions have submitted projects for funding: <ul style="list-style-type: none"> ◦ Estancia Basin has received WTB funds for regional water plan (RWP) implementation. ◦ Lower Pecos Valley has received funds implementing the RWP that are part of the Settlement Agreement. ◦ Northeast New Mexico received \$2 million in matching funds for the pipeline. ◦ Northwest New Mexico/San Juan have requested funds for the Navajo Gallup Pipeline and other major infrastructure projects.
C.13	67	52	The OSE/ISC and the Water Trust Board will evaluate the benefits of establishing and funding a statewide program to assist municipalities and community water systems to undertake water loss audit, leak detection, and repair programs.	<ul style="list-style-type: none"> ▪ WU&C has recommended procedures, but the benefits of establishing a program have apparently not been evaluated. A funding proposal would include "system efficiencies," such as those listed in the strategy, and metering/measuring. ▪ New Mexico Tech has fielded a pilot program for ten locations. ▪ Out of the 16 water planning regions, 8 RWPs include recommendations for improvements to their public drinking water systems. ▪ ISC provided matching funds for a water audit in Lea County municipalities as identified in the RWP.
E	94	74	The State should initiate government-to-government talks with Pueblos and Tribes as an efficient way to identify areas where negotiated settlements to water disputes may be possible; other parties should not be involved during this reconnaissance phase.	Though no true consultation between governments has occurred since the passing of the State Water Plan, a series of meetings between the OSE/ISC and tribal governments are being planned.
E	95	74	Where reconnaissance phase discussions suggest that the possibility of a negotiated settlement is good, the State should promptly obtain and	The OSE/ISC have committed substantial staff and resources to assist in the settlement of the Aamodt lawsuit, the Jemez River adjudication, the Navajo water settlement, and the Gila River settlement under the Central Arizona Project federal legislation.

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			commit those resources necessary for negotiations, including hydrographic survey and legal staff. Note that successful negotiations may require almost the same level of resources as would be devoted to litigation.	
E	96	74	The State should make sustained contributions to an Indian water rights settlement trust fund or to a separate trust fund. A dedicated fund shows the State's commitment and capability and serves as a strong incentive to settle for the United States and Tribes and Pueblos.	<ul style="list-style-type: none"> ▪ Such a fund has not been set up to date. ▪ OSE staff are working with the Governor's Finance Council on a proposal to put into the water trust fund a "lock box" for matching funds for Indian water rights settlements. ▪ The OSE has developed a bill to be introduced in the 2005 legislative session requesting the State to set up an Indian settlement fund. The State Engineer has presented a draft of the bill to the Interim Water and Natural Resources Committee and has obtained the endorsement of the Committee.
State and Regional Water Planning				
C.11	61	48	The ISC will continue to provide guidance and oversight of regional water planning process, and to review and provide technical comments on regional water plan submittals.	Oversight and guidance is routine under the regional water planning program of the ISC. Plans to check the consistency of RWPs with the State Water Plan are proposed. The ISC accepted five RWPs in 2004, bringing the total completed and accepted to date to 11 RWPs. Another plan is complete but not yet accepted.
C.11	62	48	The ISC will continue to fund the completion of regional water plans subject to available appropriations.	Fiscal year 2006 funds have been requested for the completion of two of the four regional water plans yet to be completed. Fiscal year 2006 funds are also being requested for the updates of three regional water plans.
C.11	63	48	The ISC will communicate issues of overarching State concern to regional water planners.	<ul style="list-style-type: none"> ▪ Such communication will be expedited for the four uncompleted plans and those that participate in the update program. ▪ The AWRM initiative has provided for public meetings in three of the seven critical management areas that were identified (Las Vegas, Farmington, and Ruidoso), with the remaining meetings to occur during late 2004 and throughout 2005. These public meetings provide an overview of the AWRM initiative and are specific to the proposed water master rules and regulations within that basin.
C.12	65	50	OSE/ISC will consult with these planning entities to ensure consistency of those plans with State water policies, and will consider for integration into the State Water Plan those water plans completed and submitted to the State Engineer.	<ul style="list-style-type: none"> ▪ A <i>Navigational Guide for Public and Private Water Suppliers</i> is planned to be completed in 2005. This document will provide a guide for consistency with State water policies. ▪ No process for integrating accepted RWPs into the State Water Plan has been undertaken; however, extensive comments from all planning entities were considered during the drafting of the Plan and the Plan itself states how the RWPs will be used in conjunction with the State Water Plan.
F	99	76	The OSE/ISC will utilize the Governor's Blue Ribbon Task Force on Water to provide advice on the State Water Plan, including statewide policies, priorities, goals and objectives for the plan, issues of statewide concern and strategies for implementation of the plan.	The Governor's Blue Ribbon Task Force on Water (GBRTF) advised the ISC on the State Water Plan throughout its development and completion and has also been involved in the Plan's implementation. Additionally, the GBRTF meets with the State Engineer and the ISC Director monthly to assist and advise them on water policies, priorities, strategies and goals and objectives.
F	100	77	The OSE/ISC will continue to utilize the Regional Water Plan Ad-hoc Committee to advise the OSE/ISC on review of regional water plans, their integration into the State Water Plan, and on further development and implementation of the State Water Plan.	ISC's Regional Water Planning Program includes a workplan for reconvening the Regional Plan Ad Hoc Committee (RPAHC). The RPAHC will work to prioritize the implementation strategies within the regional plans for optimum funding opportunities pursuant to State Water Plan goals. The RPAHC will coordinate regional water plan strategies with State Water Plan policies.
Technical Water Management Infrastructure				
C.3	15	18	OSE/ISC will continue the development of methodologies and tools such as water resource models for estimating the longevity of water supplies, and will provide guidance to local water users in their application.	Examples of these efforts include: <ul style="list-style-type: none"> ◦ Continued work on the Taos model. ◦ User-friendly modeling package for the Roswell Basin and training of district staff. ◦ Revision of Tularosa model. ◦ Refinement of Mesilla Basin model. ◦ Documentation to assess available drawdown in wells.

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C.4	16	23	The OSE/ISC will update the river basin and aquifer system water budgets as needed, but at least every five years, making all appropriate use of existing and future regional water planning documents and data.	<ul style="list-style-type: none"> ▪ Regional water planning efforts continued, with 11 of 16 regional plans completed and accepted by the ISC. These RWPs include regional water budgets. ▪ The OSE/ISC continued model developments to refine water budget components; however, funding to complete the effort statewide is constrained. ▪ During 2004, the ISC performed seepage investigations and collected streamflow, water use, and water level change data. ▪ Because accurate and timely measurements in the Pecos Basin are of utmost importance for effective water management, ISC hires its own contractor to measure flows and gauge shifts in the river. These data are shared with the USGS and have prevented over-delivery of water to users by providing up-to-date and accurate measurements. Results of this work have also been used to enhance our understanding of water budget components. The modest rate of financing required for this endeavor provides large returns in the form of accurate and active management. ▪ The ISC has entered into agreements with the USGS and NRCS (more than \$500,000 per year) for the collection and reporting of water quantity, general water quality, and sediment data on each of the state's major rivers, and of specific snowpack data, respectively. ▪ During 2004, the OSE performed seepage investigations and collected streamflow, water use, and water level change data. ▪ Pecos River flows are routinely measured and metered by the ISC. Many of these activities are associated with water leases and purchases that increase flows at the state line. They also serve the dual purpose of providing additional vital hydrologic information to effectively manage water resources in the Pecos River Basin and improve our understanding of water budgets. ▪ The ISC employs two technical staff members for collection of water quantity and quality data within the EBID.
C.4	17	23	The OSE/ISC will support and encourage the frequent and consistent collection of data as needed to improve water budget estimates.	
C.4	18	23	The OSE/ISC will support and conduct measurement, metering and monitoring of those aspects of the water budget needed to develop defensible water budgets for areas where accurate inventories of water inputs, losses, uses, and outputs is important to the State.	
C.4	19	23	The OSE/ISC will support research on the less precise components of the water budget such as evaporation of water from open water bodies and wetted sands and evapotranspiration from riparian areas and selected crops.	
D.3	88	68-69	Subject to appropriation, the State Engineer and the ISC will create a Hydrography Bureau whose responsibilities will include: <ul style="list-style-type: none"> ◦ prioritization of projects to measure water use and water supply statewide by basin; ◦ coordination with the USGS and NRCS for water supply measurement and snow pack monitoring; ◦ development and implementation of agreements for water suppliers to conduct water use measurement projects, including design and construction of metering equipment and measurement and reporting of water use data; and ◦ collection and reporting of water use and water supply data. 	<ul style="list-style-type: none"> ▪ No efforts to create a Hydrography Bureau have been made due to a lack of funding. Future work on this strategy is subject to appropriation. ▪ The USGS has provided a service to the State through the gauging and measurement of stream systems. However, because the funding allocated to the USGS for this purpose had declined, state funding is needed to make up this lack of data.
C.14	73	56-57	The OSE/ISC will coordinate the creation of a multi-agency taskforce to identify, focus, and prioritize studies and research in cooperation with federal, private, and the state's national laboratories and research institutions. Currently identified areas where collaboration in research would yield benefits include:	<ul style="list-style-type: none"> ▪ New Mexico Senator Domenici has introduced a bill that would provide federal funds for a number of research institutions to explore the issues enumerated in the strategy. The bill would also provide funds to the Utton Center to serve as the water resource clearinghouse and collaboration hub for those investigations. ▪ Collaboration with national laboratories and research institutions that is currently taking place includes: <ul style="list-style-type: none"> ◦ Desalination, treatment of produced water, water treatment and reuse, and aquifer storage and recovery are being addressed by the WDWG and a proposal to the Governor's Finance Council

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			<ul style="list-style-type: none"> ◦ effective means to produce net increases in usable water resources, and to increase water use efficiencies without increasing overall stream or aquifer depletions; ◦ desalination, conservation, watershed restoration, evaporation reduction, water re-use, and water treatment; ◦ treatment and use of produced water (water produced as a byproduct of petroleum production); ◦ weather modification; ◦ physical processes of water supply, transport, and consumption; ◦ remote sensing, metering and measurement, and GIS technologies; ◦ hydrologic budgets, modeling, and characterization, including water quality and contaminant transport; ◦ aquifer storage, recovery, and wastewater recharge; ◦ advanced watershed land-use methods, maintenance, and recovery including new phreatophyte-control technologies; ◦ data collection/analysis, development of models and advanced instrumentation, metering and sensing equipment; and ◦ accurate, real-time measurement of evapotranspiration. 	<ul style="list-style-type: none"> ◦ Watershed restoration is addressed by the Forest and Watershed Health Plan and HB2 work group discussed in Strategy 48 ◦ Real time measurement of evapotranspiration is addressed by the monitoring committee ◦ The ISC is collaborating with the Bureau of Reclamation and various irrigation districts around the state to better understand water supply consumption and measuring and metering control structures and to assist their efforts in developing hydrologic models.
C.10	56	46	The OSE/ISC will encourage the sharing of water information through a common water library and database accessible to all water users, decision makers and the public.	<ul style="list-style-type: none"> ▪ Water right files that have been abstracted and/or imaged are available to the public, through the WATERS database, on the OSE website. Water right documents are also imaged and indexed to the corresponding water right transaction in the database and made available on the web. The project is approximately 20% complete. ▪ ITSB, working with the Litigation and Adjudication Program (LAP) and ISC, has deployed a Litigation Support Program for legal documents. ▪ The OSE enterprise GIS (EGIS) implementation has resulted in a number of intra-agency successes that have spilled over into interagency collaboratives, including Statewide Base Data, GeoIndex, Public Land Survey System, Federal Deployment, and Well Exchange
C.10	57	47	The OSE/ISC will coordinate with other State and federal agencies on data requirements and funding mechanisms needed for the acquisition of remotely sensed data and other geographic information systems data.	OSE is involved in a number of committees that collaborate with State, federal, and local agencies. These include participating in a lead role on the State GIS Advisory Committee (GISAC), a standing committee of the Information Technology Commission linked to the Office of the Chief Information Officer. In addition, an OSE staff member was appointed by the Governor's Geospatial Data Acquisition Coordination Committee to represent state agencies in requesting federal funds to acquire statewide digital data. OSE staff are also part of the EPSCORE project to provide standards for state agencies. The Forest and Watershed Health Initiative and the Inter-Agency Watershed Group are both looking into compiling GIS data for watershed health.
D.1	75	58	The OSE will periodically provide Gantt charts to update the public on progress towards completion of adjudications (see Appendix D).	GANTT charts for the prioritization and scheduling of water rights adjudications have been completed. These charts include estimated completion dates based on existing resources.
D.1	74	58	The OSE will provide information and details on the prioritization and scheduling of water rights adjudications, including estimated completion dates based upon existing resources (see Appendix D).	
D.2	78	66	The OSE will continue the development of the WATERS (Water Administration Technical Engineering Resource System) database. The WATERS database will be developed to be compatible with the	<ul style="list-style-type: none"> ▪ Analysis and abstracting of water rights files is complete for the following water basins: Tularosa, Hueco, Hot Springs, Las Animas Creek, Salt, Fort Sumner, Gallinas River, Rio Chama, Bluewater, Zuni, Sandia, Virden Valley, and Peñasco. ▪ The Lower Rio Grande water right files have been completed, but abstracting of current adjudication information remains to be

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			<p>data input requirements for the various ground water, surface water, and other models approved for use by the State Engineer for application to New Mexico water issues. The database will be readily accessible to all water rights holders and the general public, including Indian Tribes and Pueblos.</p>	<p>finished.</p> <ul style="list-style-type: none"> ▪ Analysis and abstracting of water rights files is 80% complete for the San Juan River, 60% complete for the Mimbres surface water files, and 25% complete for the Nambe, Pojoaque, and Tesuque Basins. ▪ Documents are imaged and available online for all completed basins, and tabular Information concerning each water right for these areas is available to the public on the OSE website through the WATERS database. ▪ All incoming applications are now imaged and made available online as they are received in the Water Right District Offices. ▪ The WATERS Program is working in conjunction with the Hydrographic Survey Bureau to analyze and map water rights for areas under adjudication. ▪ GIS/Database platforms have been developed to link the spatial to the tabular data. Pilot projects to demonstrate this technology have been developed for the Virden Valley, the La Plata section of the San Juan River, and the Sandia Basin. ▪ A plan to enhance the WATERS database is being implemented following a series of workshops with abstractors and water right specialists. ▪ A number of migration and compatibility projects for EGIS have been completed. ▪ EGIS has been integrated with WATERS through the use of a synchronization program. ▪ Migration of a program that structures data from other sources to be compatible with Hydrology's Ground Water Model has been completed. ▪ A design for data integration between hydrographic survey map production and EGIS has been completed; this design is being used for the San Juan and Sandia projects. ▪ The first phase in converting WATERS points of diversion into a map feature (point) that can be readily used by agency modelers has been completed. These data are also available to water right holders, Indian Country, and public.
D.2	80	66	<p>The OSE will provide information and details on the prioritization and scheduling of water rights files being abstracted, imaged and entered into the WATERS database. (See Appendix E, which sets out projected schedules and timelines with priorities for WATERS population.)</p>	<p>The OSE has identified seven priority basins for AWRM and has developed GANTT charts for abstracting, imaging and entering water rights files for those basins into the WATERS database.</p>
D.2	81	66	<p>The OSE will provide estimated completion dates for population of the WATERS database by basin, based on existing resources (see Appendix E)</p>	
D.2	82	66	<p>The OSE will periodically provide Gantt charts to update the public on progress towards completion of the WATERS database</p>	
D.4	90	71	<p>The OSE will continue development of the WATERS database to inventory, as completely as possible, all existing wells. (See Section D.2 for additional implementation strategies for the completion of the WATERS database.)</p>	
D.2	79	66	<p>The OSE will accelerate the development of the WATERS database by prioritizing the abstraction and imaging of paper water rights files, setting out projected schedules and timelines for completion, and allocating the necessary resources. The OSE will provide estimated completion dates for population of the WATERS database by basin, based on existing resources (see Appendix E). The OSE will periodically provide Gantt charts to update the public on</p>	<ul style="list-style-type: none"> ▪ The WATERS program is at full operational capability. The OSE has staffed the six Water Rights District Offices with 22 full-time-equivalent (FTE) employees who are abstracting, imaging and making available on the OSE website all incoming water rights applications as they are received. ▪ The task of abstracting the more than 300,000 historical files is primarily handled by the Central Program Office, which has moved to an expanded facility and is hiring to full strength: 19 in-house FTEs and 7 professional service contractors. Supporting the effort are 5 personnel in the OSE Information Bureau and one in the Program Support Program. ▪ The Central Program Office is working together with the LAP to prepare the seven water basins identified by the State Engineer for AWRM and adjudication. Schedules have been developed to abstract the rights in those basins. Currently, the Rio Chama and the

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			progress towards completion of the WATERS database.	Gallinas River are complete, the San Juan is 80% complete, the Mimbres is 60% complete, the Peñasco and Fort Sumner sections of the Pecos River are complete, and the Lower Rio Grande water rights files have been abstracted but the adjudication information has not.
D.2	83	66	The OSE will integrate water rights administration, water rights adjudication, and water quantity and quality databases and hydrographic survey maps and reports in a publicly accessible e-GIS platform	<ul style="list-style-type: none"> ▪ OSE staff has integrated the mapping (EGIS) with both the water rights administration database (WATERS) and the water rights adjudication database (WRAPS). Current efforts are focusing on integrating WRAPS with WATERS. Public access to water rights information and selected adjudications throughout the state is currently available through the OSE web site. ▪ The planning stage of the EPA-funded NMED/OSE Well Exchange Project, which will merge water quality (NMED/USGS) and quantity (OSE) well data, has been completed. In December of 2004, the design and testing of the merging of NMED and OSE well data will be completed. This project will provide more detailed and accurate information for the placement of future wells to ensure that sufficient safe and adequate drinking water is available before well permits are granted.
D.1	76	58	The OSE will develop an adjudication plan for each stream system, and a four-year strategic plan for the prioritization and scheduling of pending adjudications and the allocation of resources for their completion.	An adjudication plan has been completed and updated (in the form of a GANTT chart) for each of the 11 ongoing stream system adjudications in the state.
D.1	77	58	The OSE will develop a hydrographic survey plan and four-year strategic plan for the Hydrographic Survey Bureau to complete surveys for pending adjudications and to initiate surveys for future adjudications.	The Litigation and Adjudication Program (LAP) has initiated a pilot project in the San Juan hydrographic survey to integrate the WATERS database and the agency's EGIS efforts into the hydrographic survey process. This pilot project will provide the model for future hydrographic surveys. In addition, to improve communication between legal and hydrographic survey staff to expedite the prosecution of ongoing adjudications, LAP has reorganized by assigning attorneys and surveyors to three specific adjudication units: the Northern New Mexico Adjudication Bureau, the Pecos Adjudication Bureau, and the Lower Rio Grande Adjudication Bureau.
D.4	91	71	The OSE will investigate innovative methods of determining whether wells are unused, including public outreach efforts, and other alternatives to costly on-the-ground physical inspections.	The NMED-OSE Collaborative has discussed methods of determining whether wells are unused and have safety or water quality risks. Further discussion will continue in 2005 regarding this topic.
C.13	69	52	The ISC will conduct feasibility studies to identify pilot projects for aquifer storage and recovery projects and desalination projects, and recommend the pilot projects to the Water Trust Board for funding.	<ul style="list-style-type: none"> ▪ Water Trust Board funding request for El Rito, New Mexico. ▪ WDWG has started planning for areas that would be appropriate for aquifer storage and recovery and for desalination. ▪ Tularosa Basin has pilot projects for both desalination and aquifer storage and recovery.

List of Acronyms

ASR	aquifer storage and recovery	MRG	Middle Rio Grande
ASWG		MRGCD	Middle Rio Grande Conservancy District
AWRM	Active Water Resource Management	NEPA	National Environmental Policy Act
DFA	Department of Finance and Administration	NMDG&F	New Mexico Department of Game and Fish
DTF	Drought Task Force	NMED	New Mexico Environment Department
DWWG	Drinking Water Work Group	NMFA	New Mexico Finance Authority
DWWG Framework	Framework for a Comprehensive Statewide Municipal and Industrial Water Conservation Program	NRCS	Natural Resources Conservation Commission
EBID	Elephant Butte Irrigation District	OSE	Office of the State Engineer
EIS	environmental impact statement	POD	point of diversion
EGIS	enterprise geographic information system	PSA	public service announcement
EMNRD	Energy, Minerals and Natural Resources Department	RPAHC	Regional Plan Ad Hoc Committee
ENMRWP	Eastern New Mexico Rural Water Project	RWP	regional water plan
EPSCORE		SAHRA	
ESA	Endangered Species Act	SJRBRIP	San Juan River Basin Recovery Implementation Program
FY	fiscal year	URGWOPS	Upper Rio Grande Water Operations
GISAC	GIS Advisory Committee	USFWS	U.S. Fish and Wildlife Service
GBRTF	Governor's Blue Ribbon Task Force on Water	USGS	U.S. Geological Survey
ISC	Interstate Stream Commission	WATERS	Water Administration Technical Engineering Resource System
ITSB		WDWG	Water Development Work Group
JPA	joint powers agreement	WITT	Water Infrastructure Technical Team
LANL	Los Alamos National Laboratory	WTB	Water Trust Board
LAP	Legal and Adjudication Program	WU&C	Water Use and Conservation Bureau
M&I	municipal and industrial	WWWG	Wildlife and Wildfire Work Group