



TO: Daniela Glick, Director of Cabinet Affairs
FROM: **Public Works** Policy Team
RE: Water Policy
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The information provided in this report is the next step in researching information from other jurisdictions nationally and globally to support efforts in New Mexico to advance water policy thinking. First, to recap progress to date, you may remember that we are conducting a paper review of New Mexico policies and plans published in recent months. In addition, we are researching innovative and best practices both in other states and around the world.

To assist New Mexico in expanding and implementing its Year of Water initiative, our October 25 memo identified several ideas and programs from around the country and the world in the area of water policy and management. In this memo, we expand upon those ideas, based on additional research and critical analysis of those findings.

The research can be broken down in a variety of ways, and some items listed in one category could just as legitimately fall under another heading. Considering, however, both the research material and the priorities contained in the Year of Water Initiative, we have chosen the following:

1. Demand control and conservation
2. Water as an Economic Development Tool
3. Infrastructure
4. Ecosystem revitalization
5. Partnerships that work

As noted in the October 25th memo, and as the research shows, the overarching innovation in dealing with water issues today is collaboration. Because water policy touches so many other facets of our lives, there is a growing awareness that thinking outside the box, and collaborating with others – both public and private enterprises – will create essential synergies to foster water management. While we have included a separate section highlighting some notable success stories that resulted from public and/or private partnerships, you will note such joint efforts in many of the initiatives and programs included in the other sections. In short, collaboration is the key.

1. Demand Control and Conservation

Basic supply and demand requires that we must do more to reduce the use of water, and to make our uses more efficient. Reducing demand can be an inexpensive way to defer or reduce costly infrastructure expenditures. Indeed, the United Nations Center for Human Settlements estimates that a \$2 million investment in demand management could postpone a \$200 million investment in new infrastructure for more than a decade. Conservation is also critical to ensuring that biofuels are a realistic alternative to fossil fuels. Because so much water is needed to grow alternative fuel components like sugar and corn, more efficient irrigation methods must be found before biofuels can realistically meet America's insatiable energy appetite.

Review and expand metering and measuring efforts. The first step in conservation is accurate assessment of the availability and use of water. New Mexico should take inventory of all of its water metering and measurements tools and, if necessary, expand that effort to insure the most complete inventory and usage measurements possible.

The state could make metering systems on new wells drilled mandatory and could require municipal systems which receive financing from the state to have and monitor metering systems.

Require all public, commercial, industrial and multi-unit projects to include high efficiency water fixtures. High efficiency fixtures really do make a difference. Low-flow toilets use less than half of the water of a standard toilet: 1.6 gallons of water per flush compared with about 3.5 gallons of water used by a standard toilet. Similarly, low-flow shower heads use about 2½ gallons of water per minute compared to between four and five gallons per minute used by conventional heads. Low-flow faucet aerators can cut faucet water usage by as much as 40% from 4 gallons per minute to 2½.

In Denver, the water company and the housing authority partnered to retrofit a 250 unit residential complex with low-flow toilets, new faucet aerators and showerheads. The cost of the retrofit was \$116,000. Data shows that the average indoor water usage has dropped by 22%. Estimates are that the retrofits will save over 1.5 million gallons of water each year, and will reduce the Housing Authority's water bill by \$6,000.

The Governor could Lead By Example by issuing an Executive Order requiring that all new state office buildings include water efficient fixtures, and requiring that 5% of existing buildings be refitted annually. New Mexico could also require all new publicly-financed building projects to include these water fixtures and retrofit older units as well.

Consider usage fees on water. It's amazing what people can learn to do without if it costs a little more to have it. In northern France, for example, a falling water table led officials to impose a small surcharge on each cubic meter of water pumped from the aquifer. Even a very small surcharge can have a large effect, especially on large users. In France industrial users and municipalities cut water usage enough that the government was able to avoid spending over \$1 billion on building a new dam.

The Southern Nevada Water Authority imposes a fee on new water hook-ups to finance water conservation efforts to reduce demand on water supplies.

As rates are usually fixed by municipalities, which operate the water systems, the state should find ways to encourage local governments to move toward usage fees on water, such as prioritizing for state funding water infrastructure projects which include appropriate usage fees.

Impose different rate structures for different usage types and rates. As one expert said at a recent water conference in Arizona, "we don't even pay for water." In other words, we all pay the water company a set rate to treat and provide water, without any regard for its ultimate use. Agriculture is one of the primary beneficiaries of this system – in the United States and Mexico, agricultural users pay only about 11% of the full cost of water. Creating different rate structures for different end uses of water not only could decrease usage, but also would begin to reflect the actual economic value of this scarce resource.

For example, Denver will be implementing a tiered water rate structure in January. The rates will include a lower meter rate component and higher water consumption rate, meaning that bills will rise more with actual usage. Both business and residential rates will be structured to reward conservation.

While rates are set at the local level, the state can encourage locals to adopt tiered rate structures through incentives. Also, the state might consider making the receipt of water infrastructure funds contingent on use of a tiered rate system.

Offer rebates for buying water efficient equipment. In addition to the "sticks" of higher rates and user fees, implement "carrots" like rebates for voluntary retrofitting of homes. Denver Water has an array of rebates it is offering during 2006 for various eligible purchases, ranging from \$200 for high efficiency washing machines to \$25 for low-flow toilets and rain sensors. These types of rebates can be tied into the Governor's initiative water which is being considered at this time. For example, at a rebate of \$25 each, a \$500,000 appropriation

could fund incentives for the purchase of 20,000 low-flow toilets, and save as much as 38,000 gallons of water each year.

Encourage water conservation in agricultural use. It is estimated that agricultural water use accounts for roughly 80% of all water usage in New Mexico. So the more we can foster agricultural conservation, the better. Some ideas for New Mexico to consider include:

- **Grow crops in more seasonally or climatologically appropriate rotations to get more “crop per drop.”** It is axiomatic that growing a water-intensive crop in a drier climate or season uses more of this precious resource and often yields less output. For example, in the Niger River basin, rice – a more water-intensive crop – is grown in the dry season. Switching to wheat in the dry season would mean using 1/3 less water, and still provide a food crop with good commercial value. New Mexico could use incentives to encourage farmers to rotate to more seasonally appropriate crops.
- **Reward conservation in water “boom” years with assistance in the “bust years.”** Offer incentives for sound water management and conservation either in the form of cash, or in additional water allocations at no or reduced cost during times of drought.
- **“Retire” poor drainage agricultural land.** The state might institute a program to repurchase such property for wetlands and habitat purposes, or otherwise discourage use of water for low-value crops, so that what water is used for agriculture in the state is used more efficiently on those that represent a greater yield and return – yet another way to get more “crop per drop.”
- **Require Local Conservation Districts and Acequia Associations to Have Conservation Plans.** These entities control the flow of water to local farmers. They should play a key role in planning how farmers in their districts could reduce their water usage through efficiency. The state could ask the districts to plan how they could reduce usage by a certain percentage for example – 10 percent – over the next decade.

Look for creative ways to use “gray-water.” Gray water, which is produced by sewage treatment ponds, is nutrient –rich and ought to be put to good use rather than simply discarded. For example, an Australian man is exploring a joint venture to use gray water to irrigate eucalyptus trees for the production of biofuels at a much lower cost. The oil could also be siphoned off and sold for industrial use.

Texas allows use of gray water meeting state standards for dust control, landscape maintenance, toilet flushing, and irrigation. Cyprus allows gray water to be used at hotels and sports facilities. Tokyo, Japan requires mandatory gray water recycling for any buildings with over 30,000 square meters in space. Shimadzu Corporation of Japan uses recycled gray water for its airplane manufacturing plant's air conditioning system and toilet flushing. The development of these systems has led the company to create an environmental solutions business.

Statutory and regulatory changes across the Southwest, including here in New Mexico, have greatly increased the potential uses of gray water. The state could take advantage of this by a two-fold incentive program: (1) offering tax incentives to businesses to use gray water, and (2) using tax incentives to foster the growth and expansion of businesses that develop gray water systems.

Do more to foster rainwater harvesting. Require (through legislation if necessary) that new facilities with sufficient roof area, especially if built by the state, incorporate rainwater harvesting systems in their design and construction, and develop incentive programs to encourage these systems in private construction – residential and commercial – throughout the state.

Expansive rooftops without catchment systems in place are an untapped resource. The Governor should Lead By Example and require that all new state buildings with sufficient roof area incorporate rainwater harvesting systems in their design and construction. The state should also explore the feasibility of retrofitting existing state structures with the systems. In the private sector, the state should consider developing incentives to encourage use of these systems in private construction – residential and commercial – throughout the state. Studies should be done to determine the cost-benefit of amending the state building code to require all developers to include catchment systems in new construction.

Use xeriscape landscaping. Xeriscape landscaping uses little or no water. Public projects should all be landscaped in xeriscape. New Mexico should also consider statutory or regulatory changes to require its use in all industrial, commercial or multifamily developments to have xeriscape.

Move toward a market-based system for water decisions. Because of New Mexico's longstanding laws and customs regarding priority water rights, a complete move to a market-based system for water allocation is a remote possibility. But some steps in that direction are possible.

For example, the state could create a resale market for surplus water, similar to what Governor Pete Wilson did in California in 1991. During a peak drought period, he purchased water from farmers at prices considerably higher than they

had to pay for it, deposited it in a “water bank” and then resold it to urban areas at even higher prices. Subsequent studies of the effects of the program showed economic gains in both the urban areas that purchased the water and the agricultural areas that sold the right and let their fields lie fallow.

2. Water As An Economic Development Tool

Technological innovations span the spectrum of all things related to water – they can foster conservation and demand control effort, facilitate ecosystem restoration, and support infrastructure modifications and changes. With the growing demand for fresh water across the globe, the demand for these technologies will only increase. Targeting water based businesses as a growth area for the state of New Mexico could be not only an investment in water saving technologies, but a potential job base for the state.

New Mexico has a taste for the depth of companies and technologies on the market from the investments made through the state’s water innovation fund. Proposals included everything from service companies who advise local homeowners on conservation methods to high tech devices which detect leaks in underground municipal water systems long before they are recognized on the surface.

Israel is a world leader in water technology and policy. This is a position that has been developed in part by necessity because Israel, as does the rest of the Middle East, confronts limited fresh water options to sustain their populations and economies in their arid and semi-arid climates. Northern Africa and the Middle East hold more than 6% of the world’s population but less than 2% of the world’s renewable fresh water resources. In particular Israel has long been known as a leader in desalination, drip irrigation, reforestation, and water recycling. Israel has used its experience in water technology to invest in the commercial development of new technologies. The country plans to use the technologies to further its water management as well as export the technologies which create an economic base of high wage, high tech jobs.

Through its state owned water company, Israel has created some aggressive ventures including:

- WaTec, a program which seeks out entrepreneurs and water technology vendors both to introduce existing technologies and offer new technologies for joint research and development projects. Entrepreneurs are provided beta site and commercialization programs, technology analysis and data, access to global markets, and help in locating partners and capital.
- Waterfronts, a newly created entity with a goal of enabling approximately 100 water start-up companies to realize their potential by 2008. It has three programs in the areas of concentration designed to assist start-up companies: (1) research and development and professional training, (2) targeted investments for Israeli technology adoption in Israel and globally, and (3)

streamlining technology adoption within Israel so the national policies require the results made possible by the technologies in which the country is investing.

Israel has set the standard for using the boom in water technology development as a tool to develop their economy. Targeting water technologies as an economic development sector would mean New Mexico would have a spectrum of programs aimed at recruiting new water technology businesses, supporting start-ups and growing the existing water related companies in the state.

Growing Existing Water Related Companies.

- **Identify Water Related Businesses.** Since water technologies are nascent in their development, businesses do not recognize themselves as a part of a related industry in New Mexico or the nation as a whole. For example, most water quality technology companies would probably be categorized as biotechnology companies. New Mexico could organize and identify all water related businesses in the state or identify the states cluster as an initial step in growing and supporting these companies. Once the cluster had been organized the state could assist in creating an industry organization charged with determining the needs of the budding industry in terms of business climate, workforce, and possible incentives. This would be similar to the initiatives started by the state to support the hydrogen technology, biotechnology, and photonics industries.

Supporting Start-ups

- **Invest State Monies in Venture Capital and Early Stage Seed Investments for promising start-up companies.** The state could create an investment fund targeting venture capital to water technology companies. These companies could be started by New Mexicans or entrepreneurs recruited from other states to start their business in the state as a condition of the investment. The state could also achieve these investments by creating set-asides in current investment funds mandating investments in water technologies. This could include venture capital funds managed by the state investment council, lending programs supported by the Small Business Investment Corporation or the loan participation program under the Statewide Economic Development Finance Act as administered by the New Mexico Finance Authority.
- **Technology Transfer Programs from Universities and the National Labs to Private Business.** The state could invest in technology transfer programs which would identify and catalog water technologies developed at the states universities and national labs that could be converted into commercial applications.
- **Tax Credits for Establishing Water Businesses.** New Mexico has a broad range of existing tax credits and exemptions aimed at developing certain

industries in the state. Most of the tax credits are broad enough in nature to cover water technology businesses; however, specialized tax credits could be designed.

Recruiting

- **Priority in Recruiting for the NM Partnership.** The New Mexico Economic Development Partnership is the state funded organization with the mission of recruiting new businesses. This organization could be directed to target water technology companies in their recruiting activities within existing funding. The Partnership would identify existing water technology companies worldwide and embark on a campaign designed to lure those companies to relocate to the state. In addition, the Partnership could pursue relationships with major corporations already engaged in the development of water technology, GE for example, and try to relocate new spin-offs or acquisitions to the state.
- **Establish University Center for Excellence in Water Technology.** One of the states universities could house a Center for Excellence which would attract the world's best research minds to develop and innovate research and technology in the area of water. Such centers provide incentives for companies who rely on technology innovation as a part of their business model to relocate. The Center for Excellence can supply a steady stream of new research and ideas as well as a workforce of students who have studied and worked at the center who have cutting edge knowledge in a specialized field.

3. Ecosystem Restoration

Ecosystem restoration is a vital part of any complete water management plan. The Year of Water initiative includes a \$7.5 million river ecosystem restoration package for use across the state. Some ideas to facilitate and expand on that include:

Rejuvenate streamside forestation. As a general rule, one of the most efficient ways to preserve water supplies, particularly around cities, is to conserve forests. Researchers in Pennsylvania have recently concluded that streamside (riparian) forests are a more critical component in protecting the world's fresh water than previously believed. While there has long been a general consensus that this forestation can filter out pollutants before they enter a stream, the new research shows that the forestation also helps the water quality of the stream itself by increasing the ability of the water's ecosystem to process organic matter and pollutants like nitrogen. The study, conducted on 16 small streams in the eastern US, revealed that streams in forested areas are wider and shallower than those in meadowlands, with rougher beds, more habitats and slower flowing water. This more natural ecosystem is more efficient in processing pollutants, thus making water cleaner and safer.

Recharge aquifers. In Idaho, the Idaho Department of Water Resources is trying for the first time to recharge an aquifer. Based on a computer model, officials believe that if they push water into the soil around the town of Wendell, over time, the water will percolate down through the soil and return to two underground springs. The water was to be provided by the North Side Canal Company, and was said to be water that would otherwise have simply flowed down the Snake River and out of Idaho. If the project is successful, which officials hope to know by next spring, it will become the template for additional efforts across the state.

Remove non-native, invasive plants that drain water. The seven-state coalition that relies on the Colorado River (which includes New Mexico) has committed to creating a drought buffer by eliminating water-wasting plants. In Arizona, they have targeted the tamarisk tree. By some estimates, this non-native tree – common along the riverbed – drains as much as 500,000 acre-feet of water each year from the river.

In addition to more traditional ways of tree removal, the Colorado Department of Agriculture this year released 60,000 saltcedar leaf beetles – the tamarisk’s only known natural predator – into tamarisk tree stands in three counties.

Some efforts to do similar things in New Mexico are underway, such as eradication of the salt cedar tree – one of which can drain more water per year than a family would use. These efforts should be reviewed and strengthened where possible.

4. Infrastructure

The Year of Water initiative makes a strong commitment to infrastructure. In addition to specific infrastructure projects like the Eastern Navajo and Ute pipeline projects, the proposed legislation would:

- create an Office of Water Infrastructure to facilitate the implementation of water projects;
- provide \$10 million immediately for a statewide leak detection and repair program; and
- add \$25 million to the Water Trust Fund to pay for these and other infrastructure projects

Establish revolving funds or loans. The Year of Water initiative includes a \$25 million trust fund, the income from which will support local infrastructure projects. Consider making that money go further by using the income as matching funds or loans for the local projects.

Protect existing infrastructure

Given the enormous cost associated with water infrastructure, in addition to being smart about creating new plants and systems, the state must do what it can protect its existing infrastructure. Accordingly, some of the Year of Water funds legitimately should be dedicated to systems and products that can protect and extend the life of existing infrastructure. Some options include:

Water facility surveillance. Trying to monitor remote water facilities is incredibly difficult. While video surveillance seems the most likely option, this is often problematic because the remote sites usually don't have access to high speed communications networks to send the video, and the companies lack staff to monitor the video 24/7 to be sure that an alarm is really a problem.

Littleton MA and Niagara, Ontario water suppliers solved the problem by using the Longwatch Video Surveillance system. This system interfaces with the plants' existing SCADA (Supervisory Control and Data Acquisition) systems, and sends video as alarms occur over the SCADA communications network. When an alarm goes off, staff can see video on demand at their SCADA terminals and receive clips on cell phones to assess the situation.

Use of information technology for maintenance inventory. Maintaining existing infrastructure can defer very costly new investments for years. And relying on a paper-based system leaves lots of room for error. But smaller towns can't really afford large scale computerized maintenance systems. To insure that maintenance is as regular and effortless as possible, Plant City, Florida (population 32,000, with a 44 person utility maintenance crew) has installed a product called the WinTrack PM, a turnkey, preventive maintenance solution. Items that need to be checked are bar coded and entered into a system. When a maintenance worker scans a bar code on his or her handheld device, the system prompts a series of maintenance steps to be performed. Once the steps are performed, the bar code is scanned again to enter the information in the system. The system can quickly reflect what work has been done in the last month and what is scheduled for the upcoming two weeks.

Reservoir linings. Create more efficient reservoirs by using long-service liners. In planning for infrastructure restoration or development, New Mexico might take a page from California's Monterey Coast. The water for those verdant Monterey Peninsula golf courses comes from the newly commissioned Forest Lake Reservoir, a 125 year old unlined reservoir that has recently been restored with a heavy duty long lasting liner made of Hypalon. These liners not only meet very

strict environmental, leak proofing and soil stabilization standards, they also have an expected life of at least 25 years.

5. Partnerships at Work

As we discussed in our October 25th memo, much that is happening in the area of water innovation results from partnerships – various combinations of public agencies (federal, state and local), private businesses and educational institutions – and for good reason. Water solutions are often complicated, expensive, and time consumptive projects. They cost millions of dollars and are years in the making. They involve a mix of innovative ideas, large sums of money to fund their development, and testing to insure their ability to perform.

Generally speaking, no one agency or business or university is suited to cost effectively provide the whole package. By joining forces, however, solutions can be more quickly and efficiently brought to market. They can also create some powerful economic development opportunities for all concerned. For example:

- The National University of Singapore and GE Water and Process Technologies have joined forces to create an \$82 million global research and development center. Based at the University, the center will employ 1,000 top water-technology researchers.
- Israel – long one of the world's leaders in water innovation – has perfected a model for development and implantation of water tech ideas joining public and private forces. Universities and research institutes provides ideas, technological incubators develop and produce the products, and Mekorot, Israel's national water company, serves as the beta testing site for the inventions. A recent example is Mekorot's recent venture with Siemens Corporation to develop and market water treatment solutions and water security options.
- Expand upon the existing priority basin concept established in the state water plan to get more voices heard in water planning. In Colorado, recent legislation created priority basins and charged each of them with determining their region's short-term needs. In Colorado, these basins have each had roundtable discussions with diverse, and often opposing, water interests in formulating plans. In addition to soliciting a wide array of input in formulating its regional plan, each New Mexico priority basin ought to be aware of the resources and plans for other basins. There should be a **priority basin summit** where the planning teams for all regions discuss not only what they are doing, but consider how their decisions might impact other basin regions.

- A 19 year partnership between the City of Edwardsville Illinois and Veolia Water North America - Central LLC has been a win-win. The first deal in 1987 was a contract that included operations and maintenance (O&M) of the City's wastewater treatment plant. Five successful years later, the contract's scope of work was expanded to include the management of the City's water treatment facility and, in 2002, Veolia Water's contract with the City was renewed through a 15-year agreement which included \$11 million in capital improvements to the water and wastewater systems funded by Veolia, saving the City approximately \$12 million on capital work according to their estimates.

Veolia operates and maintains the City's water infrastructure, and has responsibility for insuring quality control and compliance. As of last year, the statistics were quite impressive – a 100% quality rate and 99% environmentally compliance, with only one effluent quality citation in 18 years.¹

- The International Water Association recently recognized Earth Tech for a public-private partnership between that company and Melbourne Water to provide 1320 million gallons of Class A recycled water to Melbourne customer for horticultural, recreational and residential use. By partnering with Earth Tech, the city was able to avoid huge infrastructure costs and to increase the quality and quantity of available Class A water to its customers.
- The Florida Department of Agricultural and Consumer Services, in conjunction with Southwest Florida Water Management District, is fostering voluntary quality and conservation partnerships with the Facilitating Agricultural Resources Management Systems (FARMS) program. Created in 2002, the public-private partnership currently has 26 projects underway to improve water quality and reduce groundwater withdrawals. For example, in exchange for an agreement by three large agricultural users to reduce groundwater withdrawals, the program will provide funding assistance for a pumping station, a surface water recovery reservoir and an irrigation reservoir to help them recapture and reuse water runoff. This project alone could reduce groundwater pumping by 400,000 gallons per day. When all 26 projects are complete, FARMS expects to reduce groundwater withdrawals by over 10 million gallons per day.
- A partnership between the U.S. EPA, Colorado Department of Public Health and Environment, the Colorado Rural Water Association, a landowner, a migrant camp operator and the migrants themselves has resulted in safe drinking water for the migrant camp in Gilcrest Colorado. Thanks to the

¹ Veolia also has an award-winning partnership with the City of Tampa, Florida a water wholesaler that involves the construction and operation of a state-of-the-art waste water treatment plant. Estimates there are that the over the life of the 15 year contract, the arrangement will save regional water providers – and ultimately consumers -- \$85 million dollars (or 21%) in charges.

EPA's installation of a water treatment system, the water now comes within Safe Drinking Water Act standards.

Looking further upstream

The Year of Water initiative is a great start on moving New Mexico toward a future of safe and sustainable water resources. And the ideas listed above should prove useful in implementing that vision. Simultaneously, the state can also pursue some longer range planning and critical thinking that can turn this into the Century of Water in New Mexico.

Actively support National Integrated Drought Information System (NIDIS) legislation. The Western Governors' Association recommended the formation of NIDIS under the auspices of the National Oceanic and Atmospheric Administration. NIDIS is intended to actively research and manage planning for droughts through the consolidation of research and analysis, development of simulation tools and implementation of activities that would otherwise support a more active than reactive approach to drought management. The legislation was passed by the House and moved to the Senate Committee on Commerce, Science and Transportation in September 2006. The current act appropriates \$12 million in 2007; increasing to \$18 million by 2011.

With the change in congressional leadership, this is an ideal time to move this legislation forward, to identify a key role for New Mexico, and perhaps to lobby for location of the new NIDIS center to be in New Mexico.

Take advantage of Water Quality Trading on Watershed Basis. In 2003, EPA issued a final policy on using water quality trading to help finance water quality projects on a watershed-wide basis. For example, landowners could implement agricultural best management practices that exceed existing law for non-point sources, then sell agricultural credits to industry for less than what the industry would pay for source-point credits. This system mimics the air quality credit trading system of the Clean Air Act. The state could run the "credit bank" and take advantage of existing water project cost-sharing programs to administer the bank and verify the credits. (<http://www.nacdnet.org/resources/CITF/app3.htm>)

Expand the role of the New Mexico Water Resource Research Institute. The WRRI, created in 1964, is one of the oldest water research institutes in America. The institute should reassess its programs and consider expansion of its role, primarily through strengthening partnerships with state agencies and all universities.

For example, the Arizona Water Institute's primary purpose is to link and leverage water programs at its three state universities with each other and with the private sector, consumers and water planners and professionals. Four centers work collaboratively to distribute grant funds (public and private funds) to support research and development of all water related issues. Water is viewed as the focal point for economic development through the Water, Economic Development and Sustainability Program.

Evaluate university course curricula to provide more education opportunities in water planning and management areas. In Israel, all of the major engineering colleges offer water technology programs, including crossover classes in burgeoning nanotech industries, which is where the future of water technology seems to be headed. Expanding the water tech programs could help create idea incubators for which public water companies can be the test site. With Sandia and Los Alamos labs here, the state is already fertile ground for new technology research. The state should evaluate and assess course and degree offerings at all technical colleges, colleges and universities to insure New Mexico is doing its part to train minds to help tackle these critical water issues.

Create a “water table” that solicits input from a cross section of New Mexico cabinets. Given the importance of collaboration, and the inherent impact that water has on so many aspects of our lives, many government officials need to be actively thinking and planning about water resources in their long range planning. A quarterly session of the “water table” that cuts across the vectors of state government and focuses on water can be a great start to encouraging this more global thinking. In addition to the natural fits – environmental protection, water resources, fish and wildlife – include economic development officials, tourism officials, health officials, representatives from higher education.

This governmental water think tank could interact and collaborate with the citizens on the Governor's Blue Ribbon Water Task Force on water policy to further explore and expand visionary thinking on New Mexico's Water future.

This collaboration may also be expanded to include local governments in recognition of their increasing role in water issues.

Convene a water summit. Gather a group of the nation's (or the world's) leading minds on water planning to discuss the issues and brainstorm solutions.