

To promote the wise stewardship and ensure the availability of water resources for future generations of New Mexicans through support of community-based planning and creation of inclusive forums for education, communication, and development of common ground.

Why Discuss Water Transfers?

By John Brown, Executive Director, New Mexico Water Dialogue

Why are we publishing a whole *Dialogue* focusing on water transfers? Simply, because it's a critical policy issue, and a lot is happening in this arena right now. The Office of the State Engineer (OSE) in April released for public comment a set of proposed regulations for "Active Water Resource Management," which includes (and is mainly about) procedures for "expedited marketing and leasing" of water rights. The proposal, which can be read at <http://www.ose.state.nm.us/doing-business/ActiveWaterMgt/ActiveWaterMgt-2004-04-28.pdf>, drew immediate criticism from a broad range of stakeholder interests, who commented on it both in writing and in person at a public hearing held in Santa Fe on June 21.

The public policies and procedures governing "moving water" – transferring rights and/or physical water from one "point of diversion" to another and from an old use to a new one – were the subject of a panel discussion at the Dialogue's statewide meeting in January. A lengthy summary of the panelists' remarks, together with responses from State Engineer John D'Antonio, appears here as a major article. (We

have also printed Chris Garcia's prepared remarks as a separate article.) Is it appropriate to use an economic standard to define the "highest and best use" of water? Should "the market" determine the allocation of water rights, and how much public (governmental) oversight is warranted? How are "public welfare" interests to be taken into account? Should "the public welfare of the state" be defined or determined at the local or regional level (the level where impacts are experienced), and how? Should temporary transfers be treated differently than the permanent alienation of water rights? When is a temporary transfer really not "temporary"? When is a "willing buyer/willing seller" transaction really not voluntary but coerced?

Our main articles deal with major facets of these issues, without coming to any firm conclusions. Our intent is to open dialogue, and we plan to undertake a major Dialogue project on these issues around the state beginning this fall. (See the work plan on page 11.) The State Engineer's proposed Active Water Resource Management regulations have spurred renewed debate on this issue, and we intend to ensure informed citizen input to its resolution.

Contents



- 1 Why Discuss Water Transfers?
- 2 Dialogue Welcomes New Board Members
- 3 Panelists Speak Out on "Moving Water"
- 8 Active Water Management and Water Markets
- 11 Dialogue Board Adopts Work Plan for 2004-2005
- 12 Dialogue Founders, Volunteer Receive Awards

"Saving" Water saved for next time

In order to do justice to the morning panel on "Moving Water," our featured topic, we were unable to save sufficient space to present the afternoon panel's discussion of "Saving Water." The next issue of *Dialogue* will report on progress on a major project we intend to undertake to address this issue. (See also the discussion of our work plan on page 11.)

January 13,
2005

Save this date for next year's Statewide meeting. It's sooner than you think.

The Dialogue

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The Dialogue Welcomes New Board Members

Cynthia “Cyndie” Abeyta is a hydrologist and the Middle Rio Grande Coordinator for the U.S. Fish and Wildlife Service. She has been employed with the Service since July 2000 and coordinates the Middle Rio Grande Bosque Initiative, in which she works with numerous agencies, communities, stakeholders, and concerned citizens on protecting, enhancing and restoring biological values by addressing ecological functions within the MRG corridor. Cyndie is also manager and co-lead investigator of a project to assess MRG water-quality in relation to Rio Grande Silvery Minnow habitat.

Brent Bullock is Water Resource Specialist for the Pecos Valley Artesian Conservation District. He graduated from New Mexico State University in 1996 with a Bachelor of Science in Agriculture and Extension Education. Although his background is in production agriculture and education he has been directly involved with water issues for the last three years in his current position. During his tenure here he has fully realized the critical importance of water conservation on future economic development for the people of Southeastern New Mexico and the entire state.

Mary Murnane is Water Resources Program Manager for Bernalillo County. The program focuses on implementing the joint Bernalillo County/City of Albuquerque Groundwater Protection Policy and Action Plan, including regional water quality monitoring, extending sewer and water service in the County through financial assistance to low income households, developing and implementing the County’s stormwater quality management plan, and developing water conservation

measures for County facilities. Mary formerly served as Water and Facilities Planner for the County for almost five years. Before that, she was the Regional Planner for the Northwest New Mexico Council of Governments, and was involved in the development of the NWNM Regional Water Plan. She is the County’s alternate representative to the Middle Rio Grande Water Resources Board, and a member of the MRG Water Assembly. She holds a Master’s degree from the University of Texas. She is a member of the American Institute of Certified Planners, and past president of the New Mexico Section of the American Water Resources Association.

Frank Titus is a consulting hydrogeologist. In 1956 Frank hired on (for nine years) as a “Ground Water Geologist” with the US Geological Survey in Albuquerque. He was fresh out of graduate school, Steve Reynolds was the new State Engineer, and the ‘50s drought was in full swing. Since then he taught hydrogeology and geology at New Mexico Tech (eight years); managed Environmental Impact Statement (EIS) projects throughout North America (14 years); was Manager of Hydrology on DOE’s Uranium Mill Tailings Remedial Action Project (six years); was Science Advisor to State Engineer Tom Turney (three years); was an instigator of, and active in, the Middle Rio Grande Water Assembly (more than four years); and until recently was Senior Outreach Hydrogeologist for the state Bureau of Geology & Mineral Resources (two years). He wants New Mexico to grow, but to keep looking like New Mexico — and he is convinced that he’s smarter about that now than when he first got here.

Continued on page 7

Panelists Speak Out on “Moving” Water

Chris Garcia (Some long-time Dialoguers may better remember her as Chris Nunn.)

Chris spoke first to introduce the morning’s topic. A founder of the Dialogue, currently teaching at NM Highlands University, she set forth an economist’s view both of the attractions and promises of markets, and of the pitfalls of relying on markets alone to allocate water and water rights. The dangers, she concludes, make it necessary to have political “oversight” of market arrangements. Participants viewed her remarks as extremely cogent and helpful in understanding the role of markets in water transactions, so we asked Chris to “revise and extend” her talk as a separate article in this issue. (You will find it on page 8.)

Paula Garcia

Paula (no relation to Chris) is executive director of the New Mexico Acequia Association and a Dialogue board member. She spoke of the values represented by acequia culture and noted that the SWP comes “at a critical time” of increasing demands on our water resources – because of drought and development pressures – where market solutions appear attractive to some. She contrasted this with the centuries-old

tradition of democratic governance of the acequias, referring to their origin in the Moorish Islamic “law of thirst,” which required that nobody be denied access to life-sustaining water, and referred to customary institutions of shortage sharing within and among acequias to ensure that everyone receives some water.

Paula noted that until relatively recently, many parciantes voiced disbelief that water could be severed from the land. A water right was viewed as a use right (usufruct), and conditioned on the owner’s participation in the collective. Transferring a water right out of the acequia was seen as dangerous to the community’s economic future. She described this as “background to the 2003 acequia laws.” (See *Dialogue*, Summer 2003, for summaries.) These laws are steps toward assuring “democratic community control of our water rights.”

Stating that “voluntary” transactions are in reality often coerced upon sellers who are poor, Paula asserted that market transfers of water must be tightly regulated and carefully done. Acequia commissioners are in the best position to determine whether a transfer

is detrimental to the acequia. Otherwise we run the risk of establishing policies that circumvent the public interest.

Paula said that the NMAA will be “very active in protesting transfers that are detrimental to us,” while recognizing that needs within communities are changing over time, and that transfers of water to new uses *within* communities may be likely. She concluded by quoting Vandana Shiva: “The solution to scarcity is not markets; the solution to scarcity is democracy.”

Fred Nathan

Fred is Executive Director of Think New Mexico (www.thinknewmexico.org). He discussed his organization’s case for creating a “strategic river reserve” in New Mexico. The SRR is “essentially a river management tool to assist water professionals who are charged with protecting our water supply and managing to reallocate a very small amount of new Mexico’s water and ... to mitigate crises,” the obvious examples being compact under-deliveries, and federal lawsuits related to Endangered Species Act and the silvery minnow. He argued

that “if we’re willing to be proactive we can avert or mitigate many of these problems.”

Fred noted that “even proponents of markets would acknowledge that they are not perfect and often the public sector



Left to right: Paula Garcia, Chris Nunn Garcia, Fred Nathan, Eileen Grevey Hillson, Janet Jarratt

needs to intervene” in allocation decisions: if we all acted only in our self-interest, we wouldn’t have a highway system or national defense. “We look at the strategic river reserve in the same way. All of us acting in our own self-interest, we wouldn’t have an incentive to put water back in the river even though it could benefit us all.”

Fred described the SRR as a stockpile of publicly held water rights that could be used for compact under-deliveries, federal lawsuits, and economic development assistance. The Water Trust Board would be the entity to select and prioritize water rights. “They have all the stakeholders at the table — environmentalists, agricultural folks, acequia folks, business community. They would be advised by the State Engineer, the New Mexico Attorney General, the Interstate Stream Commission chief, and Game & Fish.”

In addition to purchasing water rights the Water Trust Board could take donations. “We’re proposing [funding the Reserve from] 10 percent of the severance tax bonding capacity, and using that money for water infrastructure, treatment plants for example.... We don’t

need to raise taxes to do this. The ISC would be the entity charged with purchasing the water rights, at or below appraised market value. In the Pecos, some are holding out and trying to sell for more than market value.”

Fred’s proposal would exempt acequias water rights from purchase by the SRR. “We don’t want the state to be the instrument for undermining acequias. If the state were to purchase from a parciante that would unravel that part of the acequia.”

Concluding, Fred asked, “What’s the alternative [to the SRR]?” And he answered: “The status quo – allowing the state of Texas to dictate New Mexico’s water policy.”

Eileen Grevey Hillson

Eileen described herself as heading up Agua Vida Resources, “a one-person water consulting business.” She noted the panel’s assignment was to address the question of market transfers and leases of water and other tools to reallocate water to new uses on the future of the state, and the subsidiary question, “Can we achieve flexibility and protect other

uses, to meet both short-term shortages and long-term economic development needs.” The alternative is to become “enmeshed in many civil wars.”

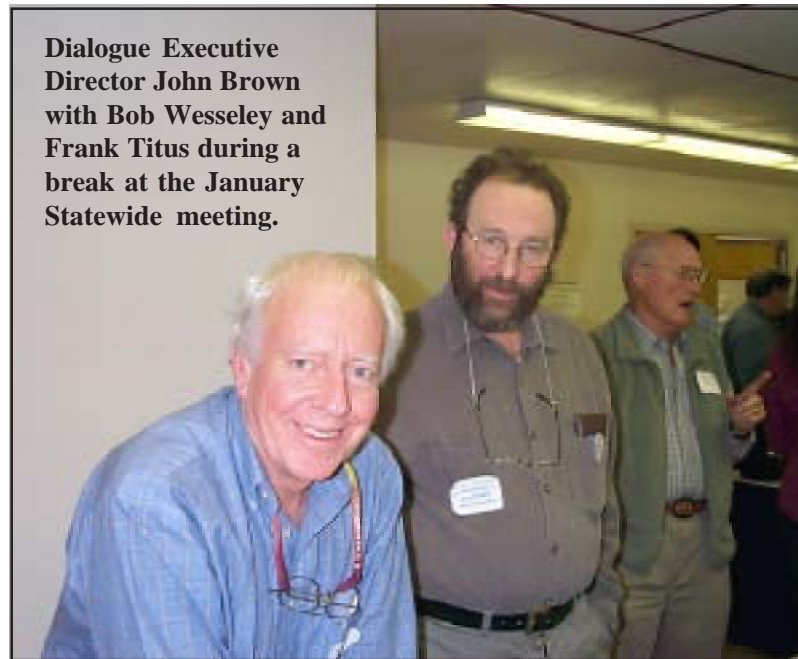
“We know we can do it because we’re already doing it, through negotiation, collaboration, respect, and trying to craft solutions. We’re coming to terms with the fact that water interconnects us; it makes us interdependent.” She urged that “we try to think of public welfare in bigger and broader terms,” to see “beyond our own quarter of the world,” and “to give up concept of the zero sum game. Whose concept of public welfare are we going to choose? Are the public values expressed by urban dwellers to be held less valuable than those of the rural?”

Rather than focusing on public welfare definitions, we have to take ourselves into find[ing] solutions that work. Acequias are a model for protecting the culture. We need to share our shortages.”

Eileen cited as examples “a number of collaborative processes that have as a concern instream flow for the minnow and flycatcher.” Both the City and the MRGCD have leased or sold water to provide supplemental water for the minnow. She believes that the governor, state engineer, and an interstate

stream director want to make sure negotiated processes can happen, such as in the Lower Rio Grande allowing the lease of water by Las Cruces and the mutual domestics to use stored farm water in Elephant Butte reservoir.

Eileen advocated water banking for sharing shortages on the Pecos and in the Four Corners area. She defined this as “putting water rights into a common pool and being willing to share on a prorated basis regardless of priority dates.” She stated her belief that there



Dialogue Executive Director John Brown with Bob Wesseley and Frank Titus during a break at the January Statewide meeting.

valued uses?” Her answer: “Yes – because we must. We’re in a state with growing population, compact obligations, with ESA competing needs, in a drought. We have to.” She reminded the group that Section C.9. of the State Water Plan says that we should “consider water rights transfer policies that balance the need to protect the culture, customs, environment and economic health and stability of the state’s diverse communities while providing timely and efficient transfers of water between

does need to be some transfer of water from irrigation to municipal and industrial needs, but that “it needs to be done creatively in a way that doesn’t hurt agriculture.” She noted that Mark Reisner (*Cadillac Desert*) and Peter Gleick have recognized that market transfers play a role in dealing with water supply problems, and concluded that it’s “up to us to be creative.”

Janet Jarratt

Janet is a farmer, an advocate for rural and agricultural interests, and a Dialogue Board member. She began by noting Chris’s statement that in markets things happen fast, sometimes resulting in unintended consequences we can never recover from, so we have to be very careful. “What markets really do is to move water from the prior appropriation agricultural uses to urban uses.”

Janet argued that it’s “dangerous to look at short-term leasing as a solution to a permanent use. When you move ag water, thinking that it’s a temporary change from ag into an urban use, it is not.” In her view, “It’s a permanent change. Urban uses are expanding. Agriculture uses are not. Are you ever going to get back what you lose when you move that water? It means changing land uses.”

Janet posed a situation where 100 acre-feet of water rights is transferred from irrigated farmland to a municipality: “What happens to that land? You have to follow that land. Any time that you transfer water from ag to ground, you have to make sure that actual wet water will follow that water right.

That’s something we’ve been terribly remiss in doing.”

Janet believes that ending “double dipping” is the only way to make clear the implications of “drying up” agricultural land through water transfers. But she also thinks many market transfers are hardly voluntary “willing seller-willing buyer” deals. “As long as subdivisions in the state have the power to condemn a water right, there is an over-burden of pressure on any rural person with a water right that some neighboring subdivision wants. You can sell to us or we can condemn it.” This raises serious questions that advocates for market transfers (as well as others)



State Engineer John D'Antonio with Paula Garcia and Chris Nunn Garcia

need to address: “What are [people who lose their water rights] going to do for a living in the future? How does [a transfer] change the culture? How does it change the look of the area? How does it [affect] water quality?”

On this last point, Janet cited research showing that the kind of agriculture practiced in the MRG valley “provides a lot of water quality improvements that people are unaware of.” In her view, this is an important reason for the need to understand the cumulative effects of water transfers.

Response to the Panel by State Engineer John D'Antonio

To Chris Garcia’s discussion of “self-created and self-developing markets,” he focused largely on the aspects of her talk that favored markets. He stated that “we’re fairly inefficient now because of the laborious process we [have to] go through in order to transfer water rights.” He acknowledged “that markets can be too effective in terms of making a permanent transfer of water rights, but said he favored water banking and leasing that “allow for short-term deliveries,” where “there’s a lot less likelihood of impairment issues to be worried about.”

On short-term leases and water banking, “we need to be able to do expedited transfers. We need to be able to adopt the rules and regs and measuring and metering devices that are necessary so that we can have expedited transfers to take care of those human needs, drinking water needs in times of drought, meeting compact deliveries, and meeting ESA delivery requirements—those

are all things that an expedited market with transfers would allow, and that’s where we really need to go.” He stated that “permanent transfers obviously need to be more carefully scrutinized” and acknowledged the need “for applicants to go through the process of filing, for notice, and for there being a protest period.” He acknowledged his responsibility in cases of permanent transfers to review “impairment issues, whether or not it’s contrary to conservation within the state or detrimental to the public welfare.”

With regard to Chris's discussion of public welfare issues, he thought that "the regional planning area is where we're going to find most of the public welfare issues.... Those 16 plans are extremely important to help define public welfare throughout the state."

Responding to Paula Garcia's presentation, John said he understood how, under ancient acequia laws and traditions, "shortage sharing is part of that philosophy, and it is a model. Let's determine how we can share shortages. Obviously that's a voluntary thing because we are a prior appropriation state, and we need the proper tools in place in order to administer priority and senior water rights."

He noted the OSE and ISC in 2003 supported the legislation that allowed acequias to disallow transfers or look at a transfer and determine if it was going to be detrimental to the acequia. "Because it was so important to the acequias we were willing to not speak against [it]." He also said that he felt that local markets within communities served by acequias "are important to be able to allow transfers because the domestic growth is going to continue." He noted his concern about domestic wells in areas that really need water systems and water quality systems in place so that the domestic wells aren't polluting the groundwater and expressed his belief that "place of origin protection and using limited transfers within acequias is a good thing." He also agreed "to a certain extent, markets do threaten the way, the life or the future of acequias if you're going to allow transfers in large amounts, completely outside the community close to the acequias."

Turning to Fred Nathan and the strategic river reserve concept, John said he supports the idea. "It's not much different from the water banking concept, the ability to make water compact deliveries, and when you say

it's to resolve and mitigate crises, I think that's what we're looking for, and that what we're trying to do in the Pecos area."

He noted, "not meeting compact obligations has a huge economic detrimental effect in terms of revenue to the state, if we have to go in and enforce priority administration. Economic analysis [shows that it would] cost different areas of the state hun-



Interstate Stream Commissioner Estevan Lopez (l.) and State Engineer John D'Antonio provide opening comments at the 2004 Statewide Meeting.

dreds of millions of dollars, so it is a statewide concern." Declaring himself "not a proponent of state owning private property," he said that it still "makes some sense for us to have an insurance policy" or risk management tool to avoid compact lawsuits. He stressed that under a strategic river reserve, the Water Trust Board would purchase the water from the ISC, but because a transfer of rights to the reserve would involve a change in place and

purpose of use for that water, it would have to go through the application process. The State Engineer would have to "make sure that there are no impairment issues, that it's not contrary to conservation." Such an application would not receive "favorable treatment" in terms of impairment.

Addressing Eileen's remarks, John noted that she is a member of the Water Trust Board, and that she understands economic development, but more importantly because she is involved with the ESA collaborative process, "she understands the value of negotiation." He appreciated her saying that "we can't just focus on public welfare, because whose concept do we use?" The concept of public welfare "is so open that it impairs the process in terms of setting up hearings and having to go through the hearing process and delays decisions on water right transfers." He viewed "negotiated markets" as an alternative, and referred to "the special water users district [the 2003 EBID legislation] as a model for expedited transfers and water banking processes. He asserted that "we are negotiating all the time," working out shortage sharing arrangements, which he noted again "are voluntary negotiations among people because we are a prior appropriation state."

Citing the Navajo Nation negotiations on the San Juan, John stressed the importance of settling Indian water rights claims. The tribes have future rights to water given to them by federal law, and in order to have assurances about everyone's future rights, and economic growth potential and everything else, we really need to quantify those rights. If we can settle instead of litigate, it will give us solutions and open up our economic development so there is some certainty in what we can do. So Eileen's negotiation concept is very important."

John agreed with Janet Jarratt's point about unintended consequences of

water transfers from agriculture to urban use. "You have to have land management after a transfer. You have to make sure that something else hasn't grown up in its place, no additional depletion, or you're defeating the purpose in terms of exchanging that water."

He was not supportive of the idea of moving away from prior appropriation to setting priorities among uses. "That's where markets come in. We're a prior appropriation state; my job is to protect senior water right holders. The market is going to create that priority, and that priority will allow for the senior water right user to hopefully justifiably be compensated for that water right ownership."

John said he supported the use of agricultural water banks in making value-based decisions about water transfers. "We talked about the special water users' district down south, those individuals making decisions on who can use their water for ag purposes for a given year, or are they going to transfer it and be compensated for it, and allow for another use. Those decisions have to be made [by] individual water users. In times of short-ages, when an individual user is only going to get eight inches of water when they're used to getting three feet, why not forbear that year and let your neighbor go ahead and get a full supply, and lease that water right to your neighbor?"

He concluded his response by saying "I think water banking and short-term leasing are things that we really need to focus on, especially to get us through drought scenarios. [For] longer term transfers, [Janet]'s right: you can't have a short-term transfer and think that you're going to permanently take water out of ag and into an urban use. That's a permanent transfer, and we really do have enough agricultural lands to accommodate a lot of future growth."

Continued from page 2

Beth Bardwell has been a resident of Las Cruces since 1995. She received her Juris Doctorate in law from the University of Oregon School of Law in 1987 and practiced Indian and criminal law for seven years. She became an avid birdwatcher and left her legal practice to study biology. She received her Masters in Biology from New Mexico State University in 1999. Beth's interest in water began in 1997 when she joined the board of a regional environmental organization and has matured over the years as she continues to work on water policy and Rio Grande restoration as program officer for the Chihuahuan Desert Field Office of the World Wildlife Fund. Beth is excited about serving on the Dialogue Board and working towards collective solutions to New Mexico's water woes.

William Gonzales serves as a member of the New Mexico Acequia Commission, the Rio de Las Gallinas Acequia Association, the San Agustin Community Ditch (where he chairs its Comisión), San Agustin Land Grant, and Mayordomo of the San Agustin Church. He is currently the Compliance Officer for Victory Enterprises, Inc., and before that worked with New Mexico Legal Aid for nine years as a paralegal, assisting community groups in Northern New Mexico in the adjudication of water rights, grazing and timber issues, water quality, and land grant and economic development concerns. He has served on the Citizens Committee for Historical Preservation (Chair), the New Mexico Acequia Association (Treasurer), and as a member of the Somos Vecinos Project of Amigos Bravos. He retired from the US Army, after 20 years service, as a paralegal in 1992. With his spouse, Ginny (Virginia), he owns a 313 acre ranch in the San Agustin Valley that once was part of his great-great grandfather's holdings. Much of their free time is spent

there tending to an orchard, garden and fixing the old buildings.

Leanne Leith has worked as the Water and Land Use Program Advocate with the New Mexico Public Interest Research Group since the fall of 2002. Her efforts have included passage of transfer of development rights (TDR) legislation at the state level, water budget and conservation legislation at the City of Albuquerque, collaborative/cooperative efforts on domestic well and other statewide water policy reforms, and participation in the Middle Rio Grande regional water planning process as a member of the Environmental Advocates Constituency Group. Before arriving in New Mexico, Leanne worked with community-based non-profits, neighborhood associations, and local/provincial/federal governments on community based watershed monitoring and restoration in southwestern British Columbia.

Other new Board members are: **Ty Bays**, Land and Water Resources Coordinator for Phelps Dodge Tyrone; **Elaine Hebard** (see her "Volunteer of the Year" citation on the last page of this issue); **Jack Milarch**, Executive Vice President and CEO of the New Mexico Home Builders Association; and **Jacob Pecos**, Director of the Department of Natural Resources and Conservation for the Pueblo de Cochiti. They will be profiled in a future issue.



Active Water Management and Water Markets

By Chris Garcia, *New Mexico Water Dialogue Statewide Meeting, January 8th, 2004*

Why are we attracted to markets?

Markets generate information. For economists, the market is the world. But not even economists understood how magical market information is until the Soviet Union, and later the People's Republic of China, tried to manage a complex economy without this kind of information.

We get market information with very little effort. Suppose I am looking for water for a new semiconductor plant, and I say to John Carangelo, "I need some water rights. I could give you \$5,000 an acre foot for yours." Right away we know those rights are worth more than \$5,000 an acre foot in the semiconductor business. If John accepts my offer, we know they're worth less than that to him.

It's possible that John has a five-acre field that is just not worth farming; it's inconveniently located, expensive to plant and harvest, and has poor yields. Suppose he's irrigating this field anyhow, raising alfalfa, because he needs to protect his water rights.

On the other hand those rights might be the essential condition for him to go on farming, and farming might be the only thing John wants to be able to do. Or maybe John doesn't believe that water rights should be sold away from the land.

The market saves us from having to know all these things about John. John just says "yes" or "no" and we know a lot about what the water rights are worth to him. Extend this situation to many buyers and many sellers and the offer and acceptance will narrow down into a market-clearing price.

In this way markets are generating value information every day for free that thousands of economists make very good livings trying to guess at where no markets exist. Try it yourself—try to figure out a way to get value informa-

tion other than the real offer and the real acceptance or refusal. It's as hard as proving whether or not God exists.

Markets use the information they generate to allocate resources.

Not only do markets develop the information needed to allocate resources; they go right ahead and allocate them. A market will move apples or coal or water to the highest bidder—which is, under certain conditions, the highest-valued use of the apple, or coal or water. When all goods are being used at their highest-valued use, we have the highest possible value of social product. This, when it's true, has to be a good thing.

The best (and as we shall see later, the worst) of the market's automatic allocation is that the market lets us off the hook of making *social* decisions about resource uses or allocations. We don't need a vote, a constitution, a regional or state plan, even a legislature. The market will decide how to allocate goods, and they will accomplish the allocation. Markets avoid all of the political institutions whose flaws and shortcomings we are so painfully aware of.

The invisible hand

We're referring to Adam Smith's "invisible hand" — an institution which he said would lead ordinary people to do, in self-interest, what society would want them to do—move low-valued items or resources into high-valued uses, creating more value, an addition to value that economists call social "surplus." Markets create social surplus when:

1. *There are no "externalities"*: For a market transaction to truly represent a move from a lower-valued use to a higher-valued use, all the benefits and

costs of the transaction must fall on the buyer and the seller. If a transaction affects people who are not parties to the transaction, there's no way to tell whether it resulted in overall improvement.

2. *All values can be monetized and traded*: For goods that have close substitutes, money is a reasonable medium of exchange, for it can be used to purchase a substitute. In this case an exchange mediated by money can be considered an improvement in overall values. There is no market calculation, however, when parents receive a ransom note demanding \$2 million for the safety of their child, for whom there is no substitute. Therefore to say that social surplus has been created when the child is exchanged for the money may be true, but it is essentially meaningless. For other "goods" for which there is no substitute, such as essential medicines, irreplaceable heirlooms, or drugs for an addict, a market exchange similarly loses the traditional assumption of value-improvement.

Under some conditions, markets will distribute the "social surplus" they generate to consumers, an appealing idea. These conditions are:

3. *Perfect information*: Markets generate information, but they also require that information about products and market opportunities be universally distributed. When some market participants know more about market opportunities than others, market results can be more like burglary than ideal distribution.

4. *Many buyers and sellers*: When many buyers are bidding against each other the market's information on use values can be very precisely refined. When there are many sellers, price is likely to be driven towards cost, so that

consumers can buy all they want of a product at a price that equals its cost of production. When there are few buyers or sellers, there may be a big gap between the (high) value to the buyer and the (low) value to the seller. The transaction would still result in a social surplus, but the more powerful party captures the surplus.

5. *Etcetera*: A number of other conditions must be met to be sure that market allocations of resources to produce goods are socially desirable, involving transaction costs, whether goods are identical, whether there are diminishing returns to production, what we think about people's preferences, etc.

Why do markets in some things worry us?

Market democracy is based on the dollar vote: Because buyers participate by making effective offers, markets are a kind of consumer democracy based on the dollar-vote. If we feel okay about the initial distribution of dollars, we're likely to feel okay about this democracy. If that distribution seems very unjust, we are likely to disapprove of market decision-making.

Most markets are imperfect: If the conditions for good market allocations aren't met, if there are many externalities, or thin markets with only a few buyers or sellers, a market may give inefficient and inequitable results.

Markets may be too effective: Another concern stems from markets' wonderful automatic qualities—their institutional efficiency and speed. Deep social changes can take place via markets very quickly; changes that often can't be undone, that are irreversible. If market imperfections create an important irreversible loss, we might wish we had gone through the agony of making those flawed social decisions we dislike so much.

Some things should not be lost: There are things that we don't believe should be alienated. Some of these things were listed in the Declaration of Independence and called inalienable rights: life, liberty and the pursuit of happiness. There are other items not mentioned there. We usually feel that people should not be alienated from their families, and taking a child from its parents' home is a very big deal under our law. Some tribal communities have inalienable land tenure—federal trust status. This keeps the land that is the *sine qua non* of the survival of tribal culture and identity intact; threats to the protected status of tribal lands are typically experienced as threats to tribal survival.

Because markets involve risk and consequences, in a market environment everything that *can* be alienated *will*, under certain conditions, be alienated. Bankruptcy law provides that certain core possessions—the tools of one's trade, one's residence, one's clothing, and of course one's liberty, are not subject to attachment for failure to meet a market commitment. They can't be alienated. They're not in the market.

Some, but not all, qualities associated with water use have come to be considered inalienable:

- Access to water to sustain life—thus, in New Mexico domestic well permits typically cannot be refused. There are other ways to assure access to water, but this is how we did it in our early development, and at least for the time being, we continue to do it this way.
- The Clean Water Act establishes that drinkable swimmable water is a right of Americans that they cannot alienate, and requires water users to take actions to secure that right.
- The Endangered Species Act establishes either that species have a right to survive, or that the public has a right to the maintenance of existing species—so that water that is necessary to the survival of an entire species is encumbered by that law.
- Tribal water rights, like tribal land ownership, probably cannot be alienated.

This leaves many water sources and water uses that can be traded in the market. Markets in water require that ownership of the water or water right be established, that the water or water right be measured in such a way that a water trade does not create externalities, and that the water transaction does not affect any inalienable quality of the water resource. This is complex and costly, but not impossible.

Active Water Management and Market Monitoring

When we talk about Active Water Management, and releasing the power of markets to help us allocate water, we are hoping to take advantage of market mechanisms to generate high-quality information and to perform those automatic allocation functions that are beyond our ability to carry out administratively. At the same time we want to be assured the market is not committing injustices, or imposing excessive costs on individuals or the public who are not part of the transaction; or creating unexpected and irreversible effects, or alienating core values that we prize and that we hope to pass on to our heirs.

To do this we:

Look at the external effects of a market transaction. The State Engineer reviews every proposed water transfer to see if existing rights are impaired, and if the change is consistent with the public welfare and conservation of the water of the state. This adds costs to water markets and makes property rights in water less certain than some other property rights. But it protects the public from nasty surprises. State Engineers have accepted the responsibility to see that existing rights are not impaired, and they established the protest process to help them carry this out.

However, since the legislature added the "public welfare" and "conservation of the water of the state" to the review

criteria, every State Engineer has said that a public process is necessary to guide these public aspects of the determination. The regional and state water planning process was created to provide some of this information. Developing better water-market mechanisms will not *replace* the review process, protesting of applications, and the information generated by publicly-prepared water plans—on the contrary, this review is essential to establishing a market in water.

We hope that over time we learn much more, through review and planning, about these external effects, and that protests and water planning clarify the issues around water values so that these processes are not so endless and vague. Still, we neglect them only at our gravest peril.

Secure essential rights to vulnerable communities. There are many examples of efforts to protect the least powerful participants in water markets. Two are offered as illustration:

- Last year the legislature enacted provisions that require that the review of any transfer of water out of an acequia begin with the acequia commission. If the acequia bylaws stipulate that the commission must approve transfers of water out of the acequia and if the commission says that the proposed transfer will hurt the acequia's ability to carry out its purposes, the application goes no further.
- Water banks managed by irrigation districts have long been used to redistribute water within the district as some irrigators need more water in a given season while others need less. Water banking from within a district to municipalities or environmental users might be used to help assure that changes in water use do not create irreversible changes in the community—district members or their staff can then decide beforehand how much water can be leased out during a season without doing irreparable harm to the district's primary mission, and restrict periodic marketing to that amount.

Conclusion

In sum, making New Mexico's water markets more effective will not get us out of the business of political decisions about water, as Steve Reynolds so fondly hoped. A market, especially in a resource characterized by large external benefits and costs, can result in catastrophic errors if it is *not* guided and managed by political decisions about public values and protections. The market has all kinds of promise—it can give us the information and institutions needed to make the changes in water use needed to meet the challenges of the future. But without oversight, a market only considers the values that are brought to market. The values associated with New Mexico's water are much more complex than that, and oversight will always be necessary.



The afternoon panel on “Saving’ Water” focused on efforts to discover how water can be conserved in meaningful quantities and on incentives to motivate conservation behavior. This topic will be addressed in the next issue of *Dialogue*. Left to right: Steve Harris, Rio Grande Restoration, Sterling Grogan, MRGCD, Tim Darden, NM Department of Agriculture in Las Cruces, and Rolf Schmidt-Petersen, Chief, Rio Grande Bureau, Interstate Stream Commission. Not pictured are panelists James Cleverly, UNM biology professor, and Larry Shore, founder of the Sandia Urban Watershed Research Institute.



Dialogue Board Adopts Work Plan for 2004-2005

At its May 18th meeting, the Dialogue's Board of Directors adopted a work plan consisting of three initiatives. The first was to develop a recommended policy framework for water conservation. With partial funding expected from the U.S. Bureau of Reclamation's Water Conservation Field Services Program, we will sponsor a series of workshops intended to identify and recommend changes in institutional arrangements to encourage water conservation practices among diverse stakeholders. The rationale for our proposal was that official attention is paid almost entirely to the technical side of the issue, *how* to conserve, with very little to the human side, "*why* conserve?" The Dialogue is in the midst of applying for support from Governor Richardson's Water Innovation Fund for additional resources to expand and document this project for policy impact.

Second, we will conduct forums and prepare recommendations on water

transfer policy. An examination of a sound water transfer policy requires recognition of the diversity of interests of water right holders and users throughout the state, identification of a variety of policy and process tools for reconciling those needs to respond to short-term and "permanent" changes in water uses, and development of criteria for taking account of public welfare implications of transfers.

Third, we will monitor implementation of the State Water Plan. The current (2003) SWP contains broad statements of policy on important issues, including those discussed in this issue of *Dialogue*, but is short on specifics. Are the regulatory and operational initiatives that the Office of the State Engineer and the Interstate Stream Commission are undertaking consistent with the SWP? How and to what extent are the goals set out in the SWP being taken on by the agencies, and how can progress toward achieving them be measured? The Dialogue Board has a large stake in

ensuring that the Plan is implemented successfully, and we are ideally positioned to act both as "watchdog" and facilitator in performing this monitoring role. Since we are not advocates for a single interest, but are concerned with process (and "due process" for interests likely to be underrepresented in policymaking), we are less likely than issue-based groups to be viewed as hostile or adversarial in pursuing inquiries about implementation of the SWP.

All of these projects are dependent on having sufficient resources to carry them out. Although we are making substantial efforts to secure replacement funding for grants no longer available to us, ongoing support of Dialogue efforts is by no means assured.

In upcoming issues of *Dialogue* we will report on this work. In the meantime, if you are interested in participating in any of these initiatives or have questions about them, please contact the executive director by email or phone.

How you can support Dialogue in New Mexico

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Dialogue Founders, Volunteer Receive Awards

At the January statewide meeting, the Dialogue inaugurated a new tradition. On behalf of the Board, Janet Jarratt presented awards to the Dialogue's two founders, Lucy Moore and Chris Nunn Garcia, and to Volunteer of the Year Elaine Hebard, who was nominated by representatives from the Middle Rio Grande Water Assembly.

In honoring Chris and Lucy, Janet sketched the history of the Dialogue from a Ford Foundation-funded Western Network project they began in the early 1990s, beginning on the Pecos, to explore avenues of communication among water users. Following a successful region-wide meeting in Las Vegas in 1992, the effort expanded across the state, and for a decade since, the Dialogue has played essential roles in New Mexico water planning, from leadership in creating the regional water planning

handbook to the legislation guiding the statewide water planning process. Over this period the Dialogue has provided many opportunities for citizens and stakeholders to come together to reach consensus and understandings previously unheard of, and has responded effectively to their demands for real participation in the process.

The Dialogue's first statewide meeting was held in 1994, Janet said. "So it is appropriate that on this tenth anniversary we honor and thank Lucy and Chris for their pioneering efforts by presenting this award of appreciation to the founders." The certificate reads: "To Lucy Moore and Chris Garcia in recognition of your vision and perseverance in insisting that the governance and administration of our precious water resources must be based on the will of the people, the Board of Directors of the New Mexico Water Dialogue presents this 'Award of Appreciation to our Founders' to each of you, knowing that

we can only attempt to carry on what you began and nurtured."

Following a gracious acceptance by Lucy (Chris had to leave after the morning session), Janet presented the Dialogue's first "Volunteer of the Year" award to Elaine Hebard, noting that in this case "Volunteer of the Decade" might be more appropriate. She called Elaine an "unsung hero" of the water planning process in the MRG region, throughout the state, and across the border with Mexico. The Dialogue Board's certificate recognizes with gratitude Elaine's "deep and comprehensive understanding of the water crisis we face at regional, state, and international levels, and your unstinting willingness over many years to undertake the most difficult and complex tasks, often under deadlines that required you to 'pull all-nighters' to save the day!"

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