

ARROYO

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Debate, Discussion Mark Ten-Year Anniversary of Arizona's Groundwater Management Act

Enacted in 1980, Arizona's Groundwater Management Act (GMA) is a decade old. The ten-year anniversary of the GMA provides an appropriate opportunity to review the act and interpret its effectiveness. Is the GMA on track toward its stated goal of controlling the severe groundwater overdraft occurring in various areas of the state?

To commemorate the GMA's ten-year anniversary, the Water Resources Research Center and the Udall Center for Studies in Public Policy—both at the University of Arizona—sponsored a conference and symposium titled, *Taking the Arizona Groundwater Management Act into the Nineties*. Participating in the meeting were people involved in various aspects of the law, from its



Symbol of the West, the windmill pumps groundwater to the surface.
Photo: Steve Godwin

development, passage, and implementation. Participants included former Arizona governor Bruce Babbitt, some of the urban, agricultural and mining representatives who negotiated the act, representatives of rural and environmental interests, water scholars, and elected and appointed government officials.

The following discussion of the GMA and its first ten years is based upon information and ideas presented at the conference.

In the Beginning

The beginning of the GMA is an oft-told tale in the history of

Arizona water policy. Often recounted is how the federal government threatened to cut off funds for the Central Arizona Project (CAP) if Arizona failed to adopt serious efforts to conserve its dwindling groundwater resources. Responding to the threat, then-Governor Babbitt worked with an unofficial "rump group," which included representatives of major state interest groups—mining, agriculture, and urban. The rump group met in closed negotiating sessions, and the GMA was the result of its labors.

Reflecting on the passage of the GMA, Babbitt, in an address to the conference, called the act revolutionary. With the act, Arizona in effect asserted control of its water policy. Babbitt said that state policy was previously formed mainly in response to the availability of federal monies for water projects.

Frank Gregg, professor in the UA School of Renewable Natural Resources, suggested in a keynote address that more complex motivations than the threatened loss of federal funds for the CAP prompted the development and passage of the act. Rather than being wholly intimidated by this threat and thus motivated to act, urban interests and mining representatives may have, in fact, welcomed the situation. Here was an opportunity to weaken agriculture's traditionally strong water position in Arizona and to boost their own status.

Gregg thus introduced a theme of importance to the understanding of the GMA, its beginnings, its

subsequent history over the past ten years, and indeed its future. However it is defined, whether as conflict or competition, the relationship between agricultural and nonagricultural interests has determined to a great extent the course of the GMA.

Lloyd Burton, professor in the Master of Public Affairs Program in Environmental Affairs at the University of Colorado, Denver, discussed the balance of power existing between agricultural and nonagricultural interests before the enactment of the GMA. He identified the 1976 Farmers Investment Company (FICO) decision as an important event that set the stage for the GMA. This decision favored agriculture and its control of groundwater to the distinct disadvantage of mining interests. In effect, the FICO decision curtailed the right of the mines to transport water from withdrawal sites to mining operations. At about the same time, litigation beneficial to agriculture limited municipalities' access to groundwater.

Although legislative actions mitigated some of the groundwater restrictions facing mines and cities, the two interests realized they had much to gain from efforts to comprehensively reform groundwater law in the state. As a step in this direction, the Arizona Legislature created a commission in 1977, two years before the Secretary of Interior's CAP threat, to study state options for adopting more comprehensive, flexible groundwater management policies and practices.

In a sense, then, lines were drawn and issues were on the table before Interior Secretary Andrus' threat to CAP funding. What the Secretary's declaration did, however, was add a sense of mission and urgency to the matter.

Gregg identified several groups that, if they had participated in the GMA negotiations, might have ensured more broad-based, long-term

support for the act. For example, although agricultural interests sat at the negotiating table, other rural interests were not represented, a poignant omission in face of today's controversy over water transfers. (Subsequent speakers remarked that rural interests declined to participate.) Further, an urban, quality-of-life interest was not represented. Environmental or development positions were not involved either, nor were private water companies. These exclusions had later implications as affected interests raise important and contentious issues.

The GMA Evaluated

The achievements of the GMA were readily recognized by conference participants. The act established a system and an organization to manage groundwater rights and, therefore, represented a major step in the state's efforts to administer and allocate its groundwater resources. The Arizona Department of Water Resources (DWR), the state agency established to administer the act, is recognized, in general, to be competently staffed and reasonably responsive.

Herb Dishlip, DWR deputy director for water management, described additional GMA achievements. He said the accurate and regular reporting of groundwater use is a major accomplishment that benefits and guides decision makers. He also stated that groundwater storage and recovery is an important activity encouraged by the GMA. Further, Dishlip said that by requiring an assured water supply, the act commits cities to long-range water resources planning.

The basic achievement of the GMA, however, is that the act represents a recognition that groundwater is, in fact, a finite resource in the state. Although obvious, this acknowledgment is significant.

Criticism of the GMA derives

from many sources and is directed at various levels, from basic assumptions to specific rules and regulations. Focusing mainly on the three basic GMA tools—conservation, assured water supply, and augmentation—the following discussion will describe concerns about each. Much of the information for the following discussion comes from papers presented by Gary Woodard, policy research specialist at the UA Division of Economic and Business Research, and Robert Glennon, UA professor of law.

The proclaimed goal of the GMA is to achieve safe-yield by 2025, a condition wherein long-term groundwater withdrawals no longer exceed recharge of the aquifer. Some critics call for a modification of the goal and others for its abandonment. In fact, a recent Auditor General's report challenged the wisdom of safe yield, suggesting that gradual depletion of groundwater may not be unacceptable, especially in light of the bountiful groundwater resources the report locates beneath Tucson and Phoenix. (The presence and availability of such resources is a matter of dispute.) Many believe, however, that broad public support exists for the safe yield concept; opinions vary however about the best means of achieving it and how quickly the goal is to be reached.

Conservation and Safe-Yield

To help achieve the safe-yield goal in the active management areas (AMAs), the GMA established five management plans to structure the "continuing mandatory conservation program" required by the act. Conservation guidelines for the user sectors—agricultural, municipal and industrial—are set for each management plan, with conservation goals becoming more stringent as the series of management plans advances from the first to the fifth, from 1980 to 2025.

The First Management Plan, drafted in 1984, targeted the first

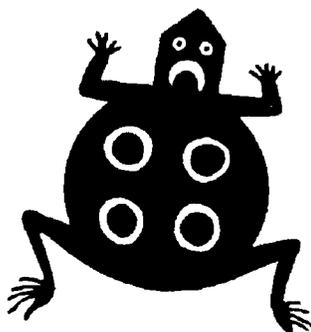
round of conservation goals. The plan attracted little controversy, the regulated community generally feeling unthreatened by its rules and conservation targets. Woodard pointed out that the goals were announced during years of ample rain. This situation contributed to the benign mood and lessened the need for extensive conservation measures. Hot, dry weather followed, however, with a corresponding need for greater conservation efforts.

As a result, by the time of the management plan's first compliance years, 1987 and 1988, most municipal utilities and many private water companies had not achieved their conservation goals. This situation sparked criticism of the established standard, with some arguing that the management plan's expectations were unreasonable. Meanwhile, others were critical of the utilities' conservation efforts and claimed that conservation requirements should be enforced. Still others said that the set goals are, in fact, too lax and that more stringent conservation goals should be adopted.

Additional criticism of the GMA and DWR can be anticipated as more stringent regulations required by the act's later phases are enforced. For example, conservation requirements of the recently promulgated Second Management Plan provoked controversy, with developers, golf course owners, and private water companies filing 11 lawsuits to challenge various provisions.

Other critics of the GMA conservation program focus less on its announced goals, and more on the basic premises that underlie the effort. They complain that the standards set for the GMA conservation requirements are carefully worded to avoid any discouragement of growth and development in the state. Such critics further argue that the GMA conservation standards are not truly supportive of the safe-yield goal and are, in fact, unconnected to the goal.

UA law professor Glennon discussed why he believes the GMA conservation program is ineffectual. First, because the act's framers were cautious not to inhibit growth in affected sectors of the Arizona economy, they grandfathered major existing water users. The conservation requirements therefore are not limiting the total quantity of groundwater pumped, but rather are mandating all users to use it more efficiently. No cap is established on the number of certain groundwater users.



Frog design on Mimbres pottery.

This is especially evident in the municipal area. Gallons per capita per day (GPCD) is the established measure to determine municipal conservation goals. GPCD is computed by dividing total annual water use by the permanent population of a service area. Thus, municipal water providers can readily serve an expanding population, with the required GPCD reduction likely to be more than offset by the increase in needed water resources. More users, although each may conserve more wisely, still means more water used.

The second problem Glennon noted about the conservation requirements is that they may simply be ineffective, especially in the agricultural area. He cited studies to support this premise. For example, a Salt River Project study argues that laser leveling may not result in the 85 percent efficiency that DWR claims for the method.

Dennis Cory, UA professor of agricultural economics, shared Glennon's concern about the effectiveness of the GMA's agricultural conservation program. Although he found in a study of the Phoenix AMA that agriculture is actually conserving a great deal of water, this conservation effort is in response to market forces, not to GMA regulations. With increased energy cost to pump water from greater depths, agriculture obviously benefits from conservation practices. Cory found that GMA regulations only ensure an additional 15,000 acre-feet of water in the Phoenix AMA, and even less if potential waivers are considered.

Casting further doubt on the effectiveness of the GMA conservation effort and its ability to significantly advance the safe-yield goal is the recent *Arizona Public Service v. John F. Long* decision. By excluding effluent from being regulated by DWR, the decision disallows, at least temporarily, any mandatory conservation program based on the use of effluent. (The Long decision is described in more detail below in the discussion of augmentation.)

Bonnie Colby, UA associate professor of agricultural economics, also expressed concerns about aspects of the GMA conservation effort. She questioned whether effective incentives exist to achieve GMA municipal conservation goals. She explained that penalties set for municipal noncompliance are minimal. Further, except for a nominal pump tax, groundwater is a relatively free commodity. In fact, groundwater pumping in many areas of the state provides the cheapest available water resource, of less cost than CAP water. Incentives are therefore lacking to meet conservation goals. Colby proposed that if groundwater cost were increased, a stronger incentive to conserve would result.

The Assured Water Supply Question

The assured water supply concept is another GMA tool to help achieve safe-yield. Through the assured water supply provision, the GMA requires developers, before building subdivisions within an AMA, to demonstrate that sufficient water of a suitable quality is available for proposed uses for 100 years. Cities and municipal areas that have contracted for CAP water are presumed to have the required 100 years of assured water supply. Developers outside municipal service areas, however, must demonstrate the availability of such supplies and ensure that their proposed uses are consistent with the AMA's management plan and goal.

The 100-year assured water supply deemed to cities and towns with CAP contracts is valid only through the year 2000. After that time, DWR may review a municipality's assured water supply to determine whether it is sufficient to justify further growth. Confronting this situation and viewing it as a potential threat to further growth and development, cities have purchased lands with accessible water resources outside their AMAs, usually in rural, agricultural areas. This water is to be "farmed"; i.e., it is to be pumped to urban areas for use. This is the origin of the water farming controversy, a lingering problem in need of resolution.

Many rural residents are critical of water farming. Some farmers might benefit from the sale of their lands, but other residents committed to a rural area, including those not directly involved in agriculture, may view water farming transactions as distinct losses to the community. They are apt to see municipalities as unwelcome water raiders, threatening the future development of rural areas as well as the tax base. Also, the underground resources of a water farm are likely to

be more valued than the farm's surface, which may be left untilled and fallow and thus vulnerable to environmental damage.

The irony of this situation has not escaped some observers. They wonder at the logic of an arrangement that moves water from water farms, often located in arid regions with limited recharge, to urban areas with groundwater overdraft problems. Questions are raised about whether such arrangements are an appropriate way to comply with provisions of an act aimed at preserving groundwater resources.

In November 1988, DWR issued proposed rules to further interpret the assured water supply component of the GMA. Included in the rules were set limits to the amount of groundwater to be applied to each acre of developed property: 1/4 or 1/2 acre-foot per acre. By decreasing the quantities of groundwater to apply toward an assured water supply, the proposed rules in effect limited development on nonurban, AMA land, possibly to 1 to 1.5 residences per acre.

As might be expected, DWR's proposed rules were not to the liking of developers interested in developing lands outside deemed or designated service areas. Developers claimed that the regulations were too restrictive and would inhibit growth and development. DWR replied that only groundwater use was being restricted and that developers could still arrange water supplies from alternative water sources; e.g., water farms, purchase of CAP water, or service agreements with cities having CAP contracts.

Opponents of the proposed rules further argued that since the regulations would affect the density level of developments, the regulations constituted zoning. This would be improper since zoning is the responsibility of local government, not DWR. It was also pointed out that the

proposed rules direct development to urban areas with CAP and/or effluent resources and away from areas without such resources, thereby further limiting options for development.

With the proposed rules, even if water were obtained from the purchase of grandfathered irrigation rights, developers would still face restrictions on its use. Developers had expected that the GMA would allow grandfathered irrigation rights to be converted to a Type I right and thereby make available 3 acre-feet to be conveyed or converted. The draft rules offered much stricter limitations. Even farmers therefore complained of the draft rules. Farmers with grandfathered irrigation rights to sell realized that since developers' use of these rights were limited, the rights were valued less on the market.

Others are critical of the proposed rules for different reasons. For example, municipalities and environmentalists were disappointed because they interpreted the rules as too lenient and thus ineffective at halting the use of groundwater for future development. Because of the controversy the proposed rules were withdrawn for further review in February 1989.

Augmentation and Safe-Yield

Although generally less controversial than other components of the GMA, the augmentation program has also attracted criticism. Critics have questioned whether certain aspects of the augmentation effort are viable, especially watershed management and weather modification. Advocates promise generous benefits from such activities; critics say that the methods involved are uncertain and could result in ecological damage.

The Arizona Public Service v. John F. Long decision added unwelcome complexities to DWR's augmentation program. By ruling that ef-

fluent, an important component in DWR's augmentation strategy, was neither surface nor groundwater, the Arizona Supreme Court set effluent outside established surface or groundwater codes. DWR, therefore, cannot require its use to replace non-renewable water sources in its management plans.

The court, however, did establish that effluent was, in fact, water. The implication of this ruling is that effluent must be put to a beneficial use and is subject to legislative and regulatory control. The court thus invited the legislature to address the effluent issue. Such legislative action would be an opportunity to work effluent into the regulations now in force for surface and groundwater, thereby reclaiming it as an important resource for achieving safe yield.

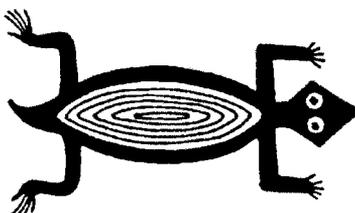
Of all augmentation strategies, CAP is recognized as having the most productive potential. According to Glennon, however, enough uncertainties exist to suggest that CAP may not be the panacea that some people expect. Such uncertainties include legal, political, and environmental factors that could affect the amount of water actually available to the state through CAP. The amount could be much less than was anticipated earlier.

Other GMA Concerns

Some environmentalists are unhappy with various aspects of the GMA. Attorney Nancy K. Laney said the GMA cannot be considered environmental legislation, although its concern with conservation would seem to indicate an environmental commitment. Laney pointed out, however, that the GMA promotes conservation to extend water supplies and, therefore, to encourage more growth, hardly an environmental ideal.

Other environmental issues of concern include the effects of water farming. Although water farming is indirectly encouraged by the GMA, the

act is mute on ensuring that mitigation measures will take place to remedy any possible environmental damages. Also, by not squarely confronting the groundwater/surface water connection, the GMA fails to provide protection for riparian areas, an endangered ecosystem in the state.



Lizard design on Mimbres pottery.

UA agricultural economist Colby voiced concern about the lack of coordination between state and tribal water policy makers. Of wide implication in many areas of water policy, this concern has special application to the GMA. The settlement of Indian claims will establish senior water rights among various tribes and between Indian and non-Indian water users. How the tribes decide to manage these water rights will affect water supplies available within AMAs. Colby believes that just as compacts are established among states sharing a common water resource, coordination between state and tribal governments is essential.

Other concerns about the GMA that conference participants noted include the GMA's focus on the AMAs and its lack of attention to other areas of the state and concern that the GMA involves too much bureaucracy, with excessive regulations and paperwork.

A Proposal is Presented

Although recognizing the importance of conservation and augmentation activities, UA law professor Glennon believes these commit-

ments are insufficient for achieving the goal of safe-yield. Glennon believes current uses, especially agricultural uses, must also be retired to expect realistically to reach safe-yield. To help develop such a strategy, Glennon proposed additional methods of encouraging the purchase and retirement of agricultural water rights.

That agriculture is an obvious source of water resources was a theme often discussed at the conference. Enough statistics were marshalled to cast agriculture in the role of excessive consumer of groundwater, with agribusiness taking a disproportionate amount of groundwater resources considering its total contribution to the state economy. For example, agriculture consumes 85 percent of the state's groundwater, but farm income accounts for only \$600 million of the total personal income in Arizona of \$48 billion. Total state exports are over \$3 billion, of which farm exports account for only \$80 million.

Here again this difficult issue is broached: agricultural vs. nonagricultural control of water resources. Grant Ward, executive vice-president of the Agri-Business Council spoke for agricultural interests at the conference. Concerned about "ag bashing," Ward protested that farmers are being unduly faulted as flagrant, self-serving water users. Along with questioning the validity of such statistics as provided above, Ward argued that various intangibles need to be considered. For example, rural lifestyles are worth preserving; in fact, such lifestyles are the spirit and heritage of the West, not to be neglected in favor of more recent developments. Supporters also claim that agriculture is due special considerations since it was from agriculture that Arizona grew and developed into the thriving state it is today.

Aware of this sensitive issue, Glennon stated that any method to

purchase and retire agriculture water rights must be fair and equitable, without penalty to farmers and irrigation districts. Glennon believes that if such a plan is carefully worked out it could attract the interest and support of farmers, many of whom, he said, are anxious to sell their land and/or water rights.

Glennon suggested that new assured water supply rules be issued to incorporate several principles supportive of his premise. Such rules would state that certificates of assured water supply based on groundwater should not be approved unless the applicant also retires a currently existing water use, a provision that would encourage developers to buy and retire water rights of local farmers. That the retired water use exceed in quantity the amount to be applied to the proposed use would also be stipulated. By having the retired amount exceed what is to be consumed, a net gain to the aquifer results. Thus, the proposal avoids the criticism that it is merely substituting municipal for agricultural use, with no progress toward safe-yield. Glennon would also have rules set preferences for retired rights to be within the same AMA to discourage water farming in outlying areas. He suggested a sliding scale of credits, with less water credit allowed if the retired right is outside the AMA.

With the above rules in place, Glennon claimed development and progress toward safe yield could occur concurrently. A further benefit would be that with assured water supply linked to the retirement of current water uses, DWR could no longer be accused of illegally assuming zoning authority. Also, if recast to reflect the above principles, the assured water supply rules would promote a market system approach, relying on incentives and maximizing free-market choices.

Glennon's proposal also intends to apply to municipalities. After the

year 2001, cities will no longer be deemed to have an assured water supply based on CAP water. Therefore, some cities may be needing water at that time to support future development. They could then take advantage of the options provided by this proposal.

Offered for discussion and debate, Glennon's proposal attracted various responses. Barbara Markham, chief counsel in DWR's Legal Division, questioned the legality of DWR providing less than full credit for water imported from outside an AMA. Former Arizona Governor Bruce Babbitt views the encouragement of market forces as admirable. He is concerned, however, that developers will object to the financial burden placed upon them by the proposal. UA agricultural economist Dennis Cory questioned whether enough farm lands would be available for sale to implement Glennon's proposal successfully. Also, Cory is concerned that if the private sector retires land now as is proposed by Glennon, the rising land values will affect the public sector's ability to retire land in 2006, the GMA-designated year to begin such activities to ensure safe yield.

A Broad Perspective

Along with reviewing specifics of the GMA—its history, provisions, rules and regulations—the conference also provided an opportunity to examine its broader implications. Marvin Waterstone, associate director of the UA Water Resources Research Center, discussed the GMA in the context of social values, goals, and objectives.

Waterstone examined the idea of water scarcity and discussed how perceived scarcity and crisis were behind the development of most Arizona water policy, including the GMA. This situation has prevailed despite studies that claimed water, if it is in-

deed truly scarce, is so because of economic, political, and social choices, and not because of any actual physical limitations.

Emphasized here is the link between social policy and water policy. In other words, much of water policy involves the allocation of water resources, which, in turn determines in large part which economic and social activities are viable in the state. As a result, careful, critical attention should be given to such basic policy questions as: How are policy choices made? Who makes the choices? What criteria are used?

Waterstone went on to examine Arizona's water policy to illuminate its implied social choices and preferences. He finds that Arizona has historically relied on water policy that supports unconstrained population and economic growth, with mining, ranching, and farming initially preferred but with a more recent shift to municipal and industrial development. Thus water policies have been adopted that stress importing or augmenting water supplies to make up for a perceived shortage in state water resources. By continuing its quest for new water supplies, the state avoids a policy of self-reliance in terms of water and the politically difficult question of growth management.

However, the current prospects for additional water supplies are very dim indeed. Thus, other policy options are now being considered, such as demand management, a concept that influenced the development of the GMA and is embodied in its implementation. But, as has already been discussed, GMA's demand management efforts are viewed by many to be flawed. Waterstone therefore believes Arizona water policy is only marginally concerned with demand management; its emphasis is more on maintaining the status quo.

Waterstone continued by arguing that the ongoing search for new water supplies and the conservation and

Conference Proceedings Available

Proceedings of the conference, *Taking the Arizona Groundwater Management Act into the Nineties*, will be available December 1, 1990. To obtain copies contact: Water Resources Research Center, University of Arizona, 350 N. Campbell Avenue, Tucson, AZ 85721; (602) 621-7607, or Udall Center for Studies in Public Policy, University of Arizona, 811 E. First Street, Tucson, AZ 85721; (602) 621-7189.

changes, those embodied, for example, in the Artificial Recharge and Underground Storage and Recovery Act, have resulted from consensus negotiations. Incremental changes — generally made in a disjointed fashion — are the prototypical result of group bargaining.

Undoubtedly an agenda for change exists and includes many of the concerns that had been discussed at the conference, but Rieke is not optimistic that such changes will occur during the next year. Consensus building for most issues has not yet reached a critical point. For example, the interest groups most concerned with water farming — municipalities, private water companies, and rural communities — have not yet resumed negotiations, and the areas of potential disagreements are many.

Rieke identified factors contributing to the current situation. She included among these factors a lack of legislative leadership to focus attention on various water problems. Further, gubernatorial leadership is essential. The candidate elected this fall will need time to develop a leadership role in water policy making.

Rieke anticipates that major changes to the GMA in the next legislative session are unlikely. Instead, she expects changes to occur over the next five years. The active support of a new governor will be needed to guide the development of an agenda, and coalitions will need to organize to represent essential interests.

Senator David Bartlett also contributed to the discussion of legislative strategies to revise the act. He believes that significant public sentiment exists in support of environmental values. Although this support could eventually lead to modifications in the GMA, such actions will not be immediately forthcoming since Bartlett believes a delay exists between the emergence of public opinion and its reflection in the legislature.

reassignment of current supplies be a very crucial public policy issue. The issue has to do with the purpose for which water is being saved. Is safe-yield, or even water self-sufficiency, to be achieved within the state? Is a specific quality of life to be preserved? Are aesthetics and wildlife habitats to be enhanced to promote tourism? Or is the growth-as-progress ideal to rule?

Previously, if such questions were even considered, they would be addressed by elites with rather narrow agendas. Unaffected by public comment and scrutiny, their decisions only incrementally changed water policies over the years. Waterstone believes, however, that this situation is changing. Other interest groups have gained power — Indian, environmental, recreational, etc. — and their voices will be heard. Further, pressures mount for greater public participation in policy making. How this new wave of awareness and involvement will affect Arizona's water policy making remains to be seen.

Revising the Act

The final item on the conference agenda was a discussion of possible revisions to the act or the need for entirely new and different legislation. In his remarks on this topic, William B. Lord, UA professor of hydrology and water resources, described various ideals to guide the making of water policy. Focusing on what might be rather than what is, Lord's presentation was an exercise in thinking through a strategy to develop better

water management policy in Arizona.

Lord stated that, after policy goals are articulated and accepted, three basic water management approaches are possible for achieving these goals. Lord described these approaches, not as recommendations or fully specified policy options, but as a demonstration of the range of choices available to policy makers.

The first water management approach discussed by Lord involved creating an efficient and equitable set of property rights. Another had to do with establishing an effective and comprehensive regulatory program. The final water management approach consisted of employing properly structured incentives to encourage private actions.

Each of the described approaches include advantages and disadvantages. With a method to assure complementary and well coordinated uses, however, Lord believes elements of all three could be applied to help develop a set of effective, efficient, equitable, and environmentally responsible water management institutions to serve Arizona.

Betsy Rieke, attorney with Jennings, Strouss, and Salmon, provided a less theoretical view of legislative options. She identified factors leading to the passage of the GMA and current factors making major changes to the act difficult to achieve. She said the GMA was passed partly in response to the perceived sense of crisis that existed at the time. This sense of crisis has passed. Without this critical incentive, changes to the act since its passage have been incremental. Such

Bartlett described another political factor that will determine future changes to the GMA. He anticipates that the next legislative session will be the last in which agriculture holds significant political power. After reapportionment, political power in the state will shift more to urban interests. This development has obvious potential implications to any plans for modifying the GMA.

Conclusion

What does the future hold for the GMA? If what had prompted the state to develop and pass the GMA was the federal threat to withhold funds to complete the CAP, what will happen when the project is in fact completed and the federal threat disappears? Will groundwater in the state be managed less vigorously? Or has the state's commitment to conservation and preserving its groundwater resources become ingrained and therefore the



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GMA provisions will prevail without outside threats?

Addressing the above questions, some conference participants indicated that a major motivation for the enactment of the GMA was to alter the perception that the state lacks water resources, and therefore is inhospitable for business investment.

These speakers believe that this motivation is still valid, and will sustain the state's commitment to the GMA. Despite varied speculation, conference participants agreed generally that the state should continue implementation of the GMA in good faith.

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