CONGRESSMAN'S REPORT
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A Toast: To a Water Settlement

The story is told of Henry Fountain Ashurst, one of Arizona's original U.S. Senators back in 1912, getting up to make his maiden speech extolling the virtues of the newest state.

After expounding on Arizona's assets -- her beauty, her mineral riches, her climate, and so on -- Ashurst concluded, in his spellbinding, stemwinding, Fourth-of-July oratorical style, "Gentlemen, there are only two things my State needs to become an earthly Paradise: plenty of water, and lots of good people!"

As he sat down, so the story goes, an old Yankee from New Hampshire rose to respond, "Senator, that's all they need in He//!"

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So far we have the people. Our population has gone over the two million mark, and in the wake of the East Coast's most severe winter on record the wave of migration to the Southwest is bound to continue.

But the same weather shift that brought blizzards to Buffalo also brought hot, dry winds to wither crops and blow away topsoil in the West. Our neighbors in California are now getting a harsh lesson in the meaning of *finite resources,* as drought forces some to live on as little as 36 tightly rationed gallons of water a day.

Closer to home, a new Tucson city council majority, elected on a pledge to roll back municipal water rates, turned around and increased rates by some 13% in its first few weeks in office.

And President Carter achieved the impossible -- uniting Arizona's bipartisan Congressional delegation -- by attempting to delete funding for the Central Arizona Project from the 1978 Budget.

The 60-day furor triggered by that attempt ended April 15 with the announcement that, after intensive scrutiny by an Interior Department review team, the President had decided to restore funding for the most important elements of CAP.

I think that was a sensible decision, a victory for both sides in the continuing dispute over the Project and the larger issues of water policy in an arid land.

But Arizonans had better not assume that the struggle is over. Both CAP and the less visible but no less important conflicts over water use will remain at the forefront of our state's political, legal, and economic life far into the future.

The basic facts are these:

** In Pima, Pinal, and Maricopa counties, we have a population of almost 2,000,000 people; we have 750,000 acres of agricultural lands growing crops from alfalfa to cotton to lettuce to barley; and we have the mines which produce about 25 percent of America's supply of copper, a critical mineral. Those uses today require 4.7 million acre feet of water a year (an acre foot is the amount needed to cover an acre of land with a foot of water -- about 325,850 gallons).

** We can generally count on about 1.1 million ac/ft of "surface" water, mainly from the Gila and Salt River systems, in those areas. None of that surface water is available for use around Tucson.

** The remaining water supply, including all of Tucson's water, must be pumped from underground aquifers. That amounts to 3.6 million ac/ft each year.

** Only 1.8 million ac/ft of groundwater is "recharged" by rainfall and effluent percolating back into the ground each year in the three-county area.

** That means we have an "overdraft" of 1.8 million ac/ft annually that is being drawn from our one-time groundwater supply. As it is pumped out, the water table falls. We have to drill deeper, at greater expense, using more energy, to tap this irreplaceable resource. And the deeper we go, the poorer the quality of the water we get. At the same time, the falling water table may cause the land to sink, damaging structures and causing cracks in the overlying land.

C.A.P. -- ARIZONA'S LAST WATERHOLE

The Colorado River is the only "new" source of water available to Arizonans. The Central Arizona Project would bring roughly 1.2 million ac/ft of water a year through a 400-mile system of canals and tunnels from Lake Havasu to Phoenix, the farmlands of Pinal County, and on to Tucson. Arizona's right to that water was established only after four decades of controversy and a dozen years of litigation, leading up to a U.S. Supreme Court decree in 1963. It took five more years of careful negotiation and compromise in the halls of Congress to secure authorization for CAP so the water we own could be used where it is needed.

But passage of the CAP in 1968 didn't end the controversy. It became clear in the years since then that some features of the Project were controversial and possibly unwise. Most of the ruckus centered on the Orme Dam and Reservoir, a flood control and flow regulation facility to be built northeast of Phoenix. Opponents contended that the lake would have destroyed vital natural habitat, including a nesting area of our magnificent -- and endangered -- national bird, the bald eagle. It also would have flooded significant archeological sites. Geological testing revealed minor fault formations which might have presented potential safety problems. And the 452 Indians residing on the Fort McDowell Reservation, much of which would have been inundated

by the reservoir, reversed their initial support for the dam (even though they would have received $33.5 million plus 2,500 acres of land and other compensation in exchange for the 17,000 lost acres) and joined the opponents.

In light of these well-publicized shortcomings, many of you -- especially those who have been active in the environmental movement -- expressed surprise when I denounced President Carter's decision to drop CAP from the 1978 budget.

But, as the Administration's review process revealed, all those objections centered on Orme Dam, and Orme Dam was not an essential part of CAP. The 1968 authorizing act specifically referred to "Orme Dam or suitable alternative." Even without Orme and two smaller dams that were deleted,* the Project's measurable benefits outweigh the costs by a ratio of at least 1.4 to 1.

I believe the arguments for the trimmed-down CAP justify going ahead with the project:

** The $1 billion-plus cost is no handout. Arizona is required to pay back the costs relating to non-Indian uses, about 85% of the total.

**Hooker Dam, on the Gila River in New Mexico, was dropped because at the site chosen it would have backed up water into a Wilderness Area, and no suitable alternative site has been found. Charleston Dam, in Cochise County, has been shelved while still in early planning stages because of uncertainty over Mexico's claims to San Pedro River water.*

** The Granite Reef, Gila-Salt, and Tucson aqueducts do very little environmental damage along their 400-mile path.

** CAP is absolutely essential to establishing a viable agricultural economy for the five Central Arizona Indian tribes. The Indians supported all of the Project except Orme Dam, but made it clear that in exchange for that support they expect movement toward settling their long-standing water claims.

** Despite the contentions of some opponents, I am satisfied that there is a water supply sufficient to sustain the Project. In the last 14 years, despite river flow below the average on which the Project was planned, 35 million ac/ft have been added to reservoirs on the lower Colorado. In fact, some river communities have been warned to expect flooding because the lakes are too full to handle sudden surges in runoff. Moreover, California is bound by law to reduce its Colorado River use by 900,000 ac/ft a year as soon as CAP is completed.

C.A.P. IS ONLY THE BEGINNING

Having said all that, the fact remains that Arizona faces a critical water situation, even with construction of CAP. Go back to the arithmetic of supply and demand: our "overdraft" is 1.8 million ac/ft a year, and CAP can only supply 1.2 million ac/ft. Even if CAP came on line today,

we would still be consuming 600,000 ac/ft more than nature replaces -- and, unless we change our ways, that gap can only widen as our population and economic activity inevitably increase.

Further complicating the picture, Arizona's Indian tribes, some of which will receive CAP water, are pressing claims which can no longer be ignored. Tribes are already in federal court or preparing suits to obtain a bigger CAP entitlement, stop the pumping of groundwater near reservations, and charge all downstream Colorado River water users for use of river flow.

This kind of litigation, stretching out for years, can seriously impair a municipality's ability to sell bonds or an individual's ability to sell or develop his property. More and more people are beginning to think that some overall combined federal/state legislative effort is going to be needed to hammer out a fair and equitable solution to the state's water problems -- including the Indian water claims. I have thought that maybe we need some kind of highly-regarded master arbiter -- a prominent citizen who has the respect and trust of all sides -- to set up shop and mediate a settlement divvying up present and future water supplies.

The alternative to such a settlement may be years and years of court battles which will bring uncertainty to hundreds of thousands of Arizona citizens.

Water shortages are increasingly a danger all across the nation. San Francisco, with its wet climate, recently had to institute water rationing. In Washington, D.C., where annual rainfall averages nearly 39 inches, recent newspaper stories revealed that faucets could run dry this summer.

And yet Arizonans, living in a desert with less than 10 inches of rain a year, use *more* water per capita than the national average! Arizona, a landlocked state of desert and mountains, has more boats per capita than any other state. While the Fort McDowell Indians were being asked to give up much of their ancestral home in the name of our state's water shortage, a land developer within sight of their reservation boasted the world's highest fountain, a conspicuous waste of both water and energy.

We had better face facts. *The plain fact is that, with or without CAP, Arizona faces a critical water situation.* As things stand today, we have neither the laws nor the management programs that can bring demand and renewable supply into equilibrium.

Arizona law treats underground water as "part of the land." If we are neighbors, I am free to pump as much water as I wish -- even though it lowers the water table under your land (and all the other land in our basin), making your well run dry and perhaps causing subsidence that can crack the foundation of your home and break your water and gas pipes. The only price I have to pay for that water is the cost of running my pump. As a practical matter, this law creates an incentive to pump now -- before somebody else sucks the basin dry -- instead of conserving.

A couple of charts I presented at the Carter Administration's water review hearing graphically show the effect of CAP on reducing Pima County's overdrawn water account. The charts deal with the water supply situation for the period 1970 to 2020. Alternatives I, II and III represent water requirements associated with different levels of population projected by Arizona State

agencies. Alternative I represents water requirements associated with the upper limit of what might be anticipated in the way of population growth. Alternative II represents a more moderate, median level of growth. Alternative III represents that median population growth with a gradual reduction in agricultural acreage to effect a balance between water supply and use (this assumes retirement of all farm lands in Pima County by the year 2000).

The difference between the dependable water supply and any of these lines is the continuing overdraft of water.

Note Alternative III on Chart 1. Use is now 4.7 times dependable supply--an overdraft of 270,000 ac/ft a year. Even in the year 2000 (with every acre of farmland retired) the use rate would still be 3.3 times dependable supply. By 2020, with modest growth and zero agriculture, the imbalance would increase to 3.7 times dependable supply--200,000 ac/ft per year overdrawn.

As I testified: "Absent CAP, there is no way that the water resources of the area can be managed to meet needs over a long period of time, short of retiring all agriculture and closing down all major industrial users of water. The only alternative would be to move out a substantial number of those people living there today."

Now compare the situation with Alternative III on Chart 2, with CAP water reaching Tucson in the mid-1980s. A balance between water use and supply is achievable with the retirement of agriculture. CAP permits management of water resources to achieve this balance and I think that's impossible--the gap is just too big--without those water imports.

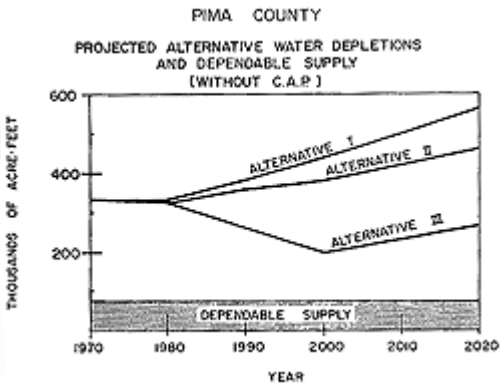

Chart 1

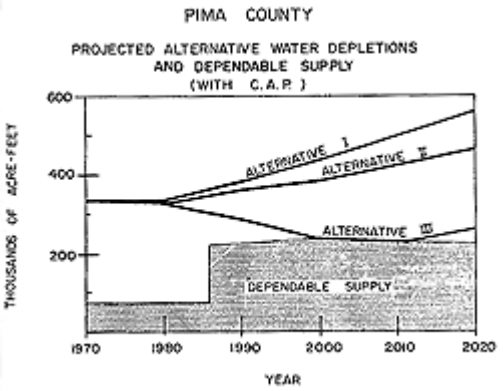

Chart 2

STATE MUST CHANGE WATER LAW

By narrowing the gap between present usage and renewable supply, the Central Arizona Project can bring us within striking distance of achieving balance without undue hardship or great economic and environmental dislocation. Equally important, construction of this Project obligates Arizona to begin the kind of changes that will bring our law into line with hydrological reality, and our water management practices into line with the limits nature placed on our land.

The CAP authorization law of 1968 was, as I have said, a carefully constructed web of obligations and benefits. The Congress did not simply say, "Here, Arizona, here's a billion dollars and a million ac/ft of water for you to play with." In return for federal aid to build CAP, Arizona had to make several commitments:

** Costs relating to agricultural, municipal, and industrial uses must be repaid, with interest on non-irrigation portions.

** CAP agricultural water may be used only on lands already being irrigated -- not to expand agriculture.

** Recipients of CAP water must reduce groundwater pumping by an equivalent amount.

** There must be a program adequate, in the judgment of the Secretary of the Interior, to control expansion of irrigation from aquifers in the CAP service area.

Those agreements were made eight years ago, and reaffirmed in 1972 when Arizona signed the CAP Master Contract. On the strength of those commitments, Congress has voted more than $300 million to get the Project underway. Yet our state legislature still has not enacted the legal reforms and water management programs that will be needed to meet the terms of the CAP law, or the further changes required to bring long-term stability to our water outlook.

Perhaps President Carter's attempt to cut funding, however misguided, will have a side benefit. He called attention to Arizona's failure to live up to our side of the bargain. While he ultimately recognized the potential value of the Project as modified, the President also put us on notice that he would

> "make further funding contingent upon further studies of groundwater supplies and institution of groundwater regulation and management by the State of Arizona."

The ball is now in our court. Governor Castro has already announced his intention to begin a statewide water conservation program. The recent compromise state water bill, while it does not reach the issue of reducing overall consumption, at least makes a start toward devising mechanisms to resolve competing demands for water.

Now is the time for ordinary citizens to get involved. In a very real sense, the fate of Arizona may be decided in the next year or two. There will be forceful representation of well-organized interests: the mines will be heard, the farmers will be heard, Indians and cattlemen and chambers of commerce all will be lobbying hard. And, as always when the stakes are so high, there is a danger that the needs of the worker and the homeowner and the pensioner will get lost in the shuffle unless large numbers of citizens take the trouble to learn the facts, think about them, get organized, and speak out. I believe they will.

Arizona's water dilemma, then, is this:

There is an abundance of good, moral, legal, economic claims to water.

But there is not enough water to satisfy them all.

Arizonans are a diverse, independent-minded group of people, but democracy is the art of compromise, and it is an art we must cultivate if our water problems are to be settled.

Let's toast to that -- so that we all may drink.