



ARIZONA WATER RESOURCE

Volume 1, No. 2

March 1992

CAWCD Promotes Indirect Recharge

In an effort to promote use of Arizona's CAP water entitlement, the Central Arizona Conservation District approved an expenditure to develop in lieu recharge projects. CAWCD has since received nine requests to participate in indirect recharge projects, with three obtaining all necessary permits and agreements to begin operations. They are the Central Arizona Irrigation and Drainage District, the Maricopa-Stanfield Irrigation and Drainage District, and the Roosevelt Water Conservation Recharge Projects.

When CAWCD delivers excess CAP water to an irrigation district, that district agrees to reduce groundwater pumping by a like amount. Unpumped water is in turn credited to CAWCD's account for future use.

The state benefits in two ways. Contracting CAWCD to deliver 100,000 acre-feet of Colorado River water for indirect recharge water in Arizona ensures that water is used here rather than in California. Also, the CAWCD delivery saves the 100,000 acre-feet that would have been pumped from the aquifer.



Ample rainfall and moderate temperatures since November promise the best show of desert flowers this spring in a decade. Allergy sufferers may experience record pollen levels, however. (Photo: George Andrejko, Arizona Game & Fish Dept.)

Underutilization of CAP Water Threatens State Allocation

As the \$3.5 billion Central Arizona Project nears completion, concern is mounting over whether Arizona will be able to use its full CAP allocation of Colorado River water. As shown in the chart on page 2, Arizona's use of CAP water declined sharply in 1991, due mostly to wet weather and idled farmland.

The situation could work to the advantage of California, a state still gripped by drought and grasping for whatever water resources are available. Arizona is reluctant to contract its surplus CAP water to its western neighbor on even a temporary basis, fearing that such temporary assignments could become long-term, even permanent. Such fears are based not only on California's unquenchable thirst, but even more important, its great congressional strength.

Arizona water planners expected agricultural districts to use the bulk of the state's CAP entitlement in the early decades of the project, with a transition to municipal and industrial users as the state's urban population grew. In fact, 12 of the 38 water entities contracting with the Central Arizona Water Conservation District are agricultural contractors. In a "normal year," an estimated 435,000 acre-feet of CAP water could be delivered to farms. *continued on page 2*



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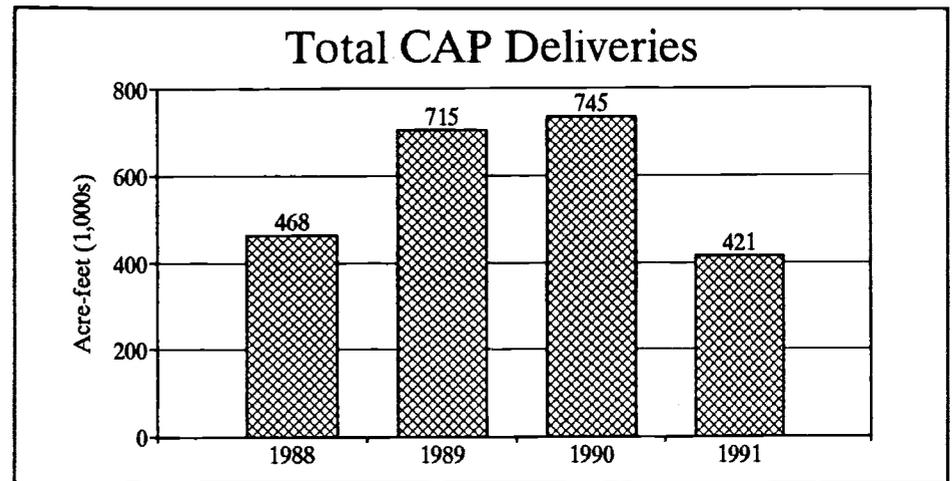
Underuse of CAP, cont. from page 1

This scenario has been derailed by low farm profits and the relatively high cost of CAP agricultural water at \$52 per acre-foot. The cost of water resulted in farmers cutting back the number of irrigated acres. Less irrigated acres means less profit which, in turn, means less ability to pay property taxes and assessments. Most experts expect this downward economic spiral to worsen over the next couple of years.

Assessments are fees that irrigation districts levy on member farmers to pay for, among other things, CAP Distribution System loans for constructing facilities to receive and distribute CAP water on farms. Nine Arizona irrigation districts have received \$230 million from these loans, and three are delinquent: New Magma, Harquahala, and Central Arizona.

Barring a sudden economic upturn, bankruptcy threatens some of the state's irrigation districts. Always an unfortunate event, bankruptcy coupled with a default on federal loans at this time would be especially untimely since the state is seeking additional congressional appropriations to complete the CAP.

In the past, such a situation would be worrisome but would not create a crisis. Traditionally, the debt would be excused or possibly refinanced at terms more advantageous to the irrigation district. Unfortunately, Arizona now lacks the well-placed congressional leadership to work out such favorable arrangements. Also, eastern congressmen are increasingly ill disposed to use federal



tax monies for such bail-outs.

A proposed solution to the problem is for municipal and industrial rate payers to subsidize agriculture. Municipalities are unwilling to accept such a burden. Most already are implementing large rate increases to cover the costs of conservation programs, water treatment facilities and augmentation measures.

As a further strategy to involve the M&I sector, irrigation districts have proposed selling future CAP resources to M&I entities for monies that could be used now to pay off agricultural debt. The districts are attempting to raise \$120 million. However, ADWR officials question whether the districts have any future CAP supplies to sell to municipalities. Of the 435,000 acre-feet of CAP water currently going to these districts, an estimated 240,000 acre-feet could be lost as part of the settlement of tribal water claims. In addition, one acre-foot per acre of CAP water is to remain with the land when it is retired

from agriculture to support future M&I uses. Given there are about 200,000 acres of potentially retired agricultural land involved, the net amount of agricultural CAP water available in the future could well be zero.

Given California's stated desire to increase their allocation on only an interim basis, some have suggested that Arizona face the reality of that state's current drought-aggravated supply situation and its Congressional clout and market currently unused CAP allocations. The funds could be used to help pay off Arizona's federal CAP obligation, help maintain our agricultural sector, or pursue a number of other goals. Others, however, warn that the easiest way for a state to solve its water problems has always been to export them. If some of Arizona's Colorado River water is marketed, the temporary equitable right thereby created might, through an act of Congress, become a permanent legal right to a portion of this state's Colorado River allocation.

A task force chaired by ADWR Director Betsy Reike has been organized to review the agricultural situation and to propose a strategy for Arizona to maintain its Colorado River entitlement. A multi-prong strategy likely will result, including regulatory and economic incentives for M&I users to put more CAP water to immediate use (see related stories, pp. 1 & 4), modest efforts to maintain Arizona's agricultural industry, and tying up much of the rest in Indian water claims settlements. Currently, there is little optimism that any quick or easy solutions will be found.



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News Briefs

ADEQ Submits Water Quality Standards to EPA

The Environmental Protection Agency late last year threatened to take action against 22 states and territories, including Arizona, for failing to adopt water-quality standards for toxic pollutants. The EPA extended a "grace period" until February 19, 1992 to the states to comply with the law by creating their own standards or accepting the national criteria. Many states, because of administrative and budgetary problems, failed to set standards. However, proposed standards for Arizona were certified by the state Attorney General February 18 and submitted to EPA before the February 19 deadline, according to technicians at the Arizona Department of Environmental Quality.

Lucy Marchado of ADEQ, who worked on developing the standards, states that the new standards will be reviewed and fine-tuned every three years. "We know these aren't perfect, but we regard this as a baseline. It's a step in the right direction," she said. The EPA will announce which states are in full compliance and which are in partial compliance on March 2.

BOR Drops Terminal Storage from Tucson Aqueduct Plan

CAP contractors in the Tucson Active Management Area have assumed that the Bureau of Reclamation would provide terminal storage in the form of surface storage facilities, a backup wellfield, or a combination of the two. Such a reliability feature would provide a backup water supply during maintenance, emergencies or other downtime.

Language in the Plan 6 Agreement promised "Surface storage facilities or an alternative to surface storage facilities, in the Tucson area, which, if

approved by the Secretary, will provide as reasonably reliable a supply of municipal and industrial (M&I) water for the water users in the Tucson area as is provided for other major Central Arizona Project M&I water subcontractors."

Instead, BOR now proposes retrofitting the pumping plants on the Tucson Aqueduct. All CAP pumping plants between the Colorado River and the Salt River Plant have redundancy built in; water can be delivered during routine maintenance. Pumping plants between the Salt River and the system's terminus southwest of Tucson have no redundancy because Tucson originally was to get water from two sources — the Colorado River and the never-built Charleston Dam on the San Pedro River.

Water interests in the Tucson area are crying foul over the surprise decision, pointing out that pump plant redundancy only guarantees water during outages caused by routine maintenance. The lack of reservoirs in the area make terminal storage a necessary condition for eliminating most groundwater pumping. BOR draft alternatives will be presented for public comment on March 9 and 10 (see Calendar, p. 6).

DWR Seeks Input on Assured Water Supply

The Arizona Department of Water Resources has issued a concept paper on a key component of the Assured Water Supply Program. The paper discusses the requirement that water supplies for new developments be consistent with the management goal of the active management area. The concept paper focuses almost exclusively on issues related to the safe-yield goal. Issues covered include: DWR's management perspective, clarification of the safe yield goal, evaluation criteria for weighing options and identification and analysis of potential alternative approaches.

Workshops will be held to provide a detailed explanation of the concepts and to offer an opportunity to participate in a facilitated discussion. Dates, times and locations of the workshops are listed in the Calendar section, p. 6.

Copies of the concept paper are

available from the Tucson AMA, 400 W. Congress, Tucson, AZ 85701, 602-628-6758. All written comments must be submitted by April 17, 1992.

This is the beginning of a two-year process leading to the adoption by December 1993 of rules governing the Assured Water Supply program. Public input is being solicited now, at the concept development stage, and will be solicited again when a draft of the assured water supply rules is available.

Oro Valley Weighs Water Options

The Arizona Corporation Commission has postponed the sale of Metropolitan Water to Tucson Water until October 1. While they did not get the phased-in rate increase they requested, the delay gives Metropolitan's customers time to install conservation devices, and the 70 percent rate increase will occur during lower-demand months.

The delay also gives Oro Valley's town council time to decide whether they should form a water district. Oro Valley currently is served by Metropolitan, Tucson Water, and two other private water companies. The impetus for creating a water department appears to have shifted from concern over Tucson Water's higher rates to a desire for local control over water decisions and a belief that such control will enhance future growth opportunities.

Israeli Shares Expertise With the Navajo

The Navajo Nation and Israel both are arid lands of scant rain, sandy soils and brackish waters. These similarities transcend cultural differences and enable Professor David Mazich, director of the Avdat Experimental Farm, Ben-Gurion University, to share with the Navajo agricultural techniques that have benefitted Israel. Mazich has developed drip irrigation systems that make efficient use of water resources, including brackish water. He also has developed new strains of crops for arid conditions, including varieties of corn, cantaloupes and tomatoes.



Legislation

A monthly publication like *AWR* cannot cover the record number of water-related bills introduced in the Arizona Legislature this year. However, we can address legislative areas; this month's subject is groundwater recharge, storage and recovery. A tabular summary of the four statutes and two bills on the subject is provided below.

Contributed by Steve Weatherspoon of Chandler, Tullar, Udall and Redhair, counsel to the Tucson Water Authority.

SCOTTSDALE

Scottsdale's draft legislation for annual underground storage and recovery of water by municipal water providers (reviewed in the February issue of *AWR*) is being supported by DWR.

The proposal would allow short-term (same year) recharge and withdrawal of non-surplus water. It also differs from existing law in allowing all water recharged to be withdrawn (there is no "cut for the aquifer").

This last provision initially had DWR approving of the bill in concept as a way of increasing use of CAP water, but questioning the "no cut" provision; DWR has apparently concluded it can live with the provision.

LEGISLATION SEEKS TO CHANGE ACC PROCEDURES

The Arizona Corporation Commission is the subject of two pieces of legislation before the Arizona Legislature. House Bill 2531 would make procedural and organizational changes to streamline agency proceedings.

The changes include establishing an Office of Regulatory Representation to perform the function of the present ACC utilities division. The new office, headed by a gubernatorial appointee, is to be more independent of the Commissioners and their personal staff when investigating utilities and participating in contested case proceedings.

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LEGISLATIVE TOOLS FOR GROUNDWATER RECHARGE, STORAGE AND RECOVERY IN ARIZONA

Statute	Project Initiation	Possible Permittees	Water Sources	Storage - Future Use	Water Recovery	Assured Supply	Assignability
Artificial Groundwater Recharge ARS § 45-651, et seq. (1986).	DWR permit required - Recharge Project Permit.	Any individual or private or public entity.	No specification of permitted sources.	No reference.	No reference.	No reference.	No reference.
Underground Water Storage ARS § 45-801, et seq. (1986).	DWR permit required. Underground storage and recovery project permit.	Any individual or private or public entity.	No specific limitation. Water retains legal character. Source impacts extent of permitted recovery.	Yes - obtain credits only for that which is actually recoverable. Certain protections for stored water.	Within area of hydrologic impact or service area of city, town, private water company or irrigation district in same AMA. Withdrawal debits range from 100%-110% (aquifer cut).	DWR to include 90-100% of amount in storage account. May include projected additions.	May convey project permit. No mention of credit or debit assignments.
Indirect Groundwater Storage and Recovery ARS § 45-851, et seq. (1990).	DWR permit required - Indirect Groundwater Storage and Recovery project permit.	Any individual or private or public entity.	Effluent, CAP water, Colorado River Water. Above sources defined as "in lieu" water.	Yes - obtain credits to the extent groundwater pumping is reduced by recipient of in lieu water. Provider of in lieu water must have right to, but be unable to use such water directly. If CAP water, must be in excess of sub-contract or Nogales. Protections for stored water.	From within area of indirect storage (where recipient would have withdrawn groundwater) or within service area if city, town private water company or irrigation district. Debits for withdrawal range from 100-110% (aquifer cut). May offset excess municipal use under gpcd limits.	DWR to include 90-100% of stored credits in determining assured supply. May also include projected additions.	May transfer stored credits in whole or in part.
State Demonstration Projects - CAP ARS § 45-831 et seq. (1990).	CAWCD applies to DWR for underground storage and recovery project permit.	CAWCD only.	Excess CAP water not deliverable to sub-contractors.	Yes - only for M&I uses in county where project is located (one in Maricopa, one in Pima). DWR controls the distribution.	Per underground storage act.	Per underground storage act.	DWR may "sell" stored water for various purposes.
Annual Storage and Recovery (Proposed 1992).	DWR permit required. Annual storage and recovery project permit.	Cities, towns, private water companies.	Surface waters, primarily CAP water. (Currently conflicts with surface water laws.)	All water stored must be withdrawn during same calendar year. Certain protections for stored water.	Recovery generally from service area wells. Some exceptions but must be in proximity to area of storage.	No reference.	No reference.
Instream Storage and Recovery. (Proposed 1992).	DWR permit required. Underground storage and recovery project permit.	Any individual or private or public entity.	No specific limitation. Water retains legal character. Source impacts the extent of permitted recovery.	Yes - obtain credits only for that which is actually recoverable. Certain protections for stored water.	Within area of hydrologic impact or service area of city, town, private water company or irrigation district in same AMA. Withdrawal debits range from 100-110% (aquifer cut).	DWR to include 90-100% of amount in storage account. May include projected additions.	May convey project permit. No mention of credit or debit assignments.



Special Projects

Current water-related studies, pilot projects and applied research are summarized below.

Underground Fate, Transport of Microorganisms Studied

Methods are needed to predict the survival and transport of pathogens in groundwater in order to establish regulations for septic tanks, landfills, wastewater irrigation, and land application of sludge, as well as other potential sources of groundwater contamination.

Model equations for groundwater flow, although probably generally adequate for predicting the movement of water, are inadequate for predicting concentrations of microorganisms in groundwater. Such predictions require quantifying transport processes, such as retention (adsorption) in soil and release (desorption) from soil, and survival of microorganisms in groundwater.

A two-year research project at the University of Arizona on underground fate and transport of microorganisms is nearing completion. First-year research determined the effects of the pH, ionic strength, and soluble organic matter of water on virus adsorption and desorption in controlled laboratory column and batch experiments. Researchers then devised a hypothetical model of virus transport in the subsurface that could be tested in the field.

Second-year field experiments extended laboratory results to realistic field situations. Early field results indicate that virus survival varies greatly from one location to another and appears to be dependent on groundwater temperature. A final report on this project should be completed this summer.

Funds for the project were awarded by the UA Water Resources Research Center under the Water Resources Research Act, Section 104 research grant program. For additional information

contact Roger C. Bales, Hydrology and Water Resources, and Charles P. Gerba, Soil and Water Sciences, University of Arizona, Tucson, Arizona 85721; (602) 621-7113

Revegetating the Desert

Known for its range and frontier traditions, the West is acquiring a new legacy, the result of socio-economic trends. As increasing amounts of western water are diverted from agriculture to serve the needs of rapidly growing cities, the legacy of abandoned farmlands arises.

The Desert Botanical Garden Research Department has begun a two-year research project to learn more about restoring native plants to abandoned agricultural areas. Directed by Dr. Laura Jackson, the project will research methods for establishing native plants that are adapted to the climate. Once established, these plants would require no extra water, while providing excellent habitat for wildlife.

The need for such a research project is obvious. In the Santa Cruz and Gila river valleys where the study is to be conducted, 25 to 50 percent (850 square miles) of all agricultural land has been retired, and statewide the figure is approximately 1,600 square miles. This figure is expected to increase as thirsty cities acquire more water.

The objectives of the project are to develop least-cost methods of restoring diverse native biotic communities to retired farmlands and to develop methods for identifying and prioritizing retired farmland for restoration.

The primary restoration variables to be studied are planting date, field preparation, irrigation, mulch, and species composition. The same species mix, developed by observing native vegetation close to the experimental site, will be tested in several experimental treatments.

The first set of experiments will try to establish the best planting season and optimal levels of irrigation. The first planting occurred in January 1992. The next are scheduled for March and July.

A second objective of the project is to map the abandoned and soon-to-be abandoned farmland in a 300 square-mile

area in relation to political boundaries, topography, soils and natural areas in order to determine priorities for protection and restoration.

Quick results are not expected. Revegetation, especially in the desert Southwest, is a very slow process. For example, satellite photos of some of Arizona's estimated 2 million acres of abandoned farm land reveal marks from plow furrows more than four decades after they were retired.

The project site is located near Casa Grande and is part of Mesa's "water farm", 11,600 acres of farmland slated for retirement early in the next century. Mesa is co-sponsoring the project and providing water for the experiments.

For further information about the project contact Dr. Laura Jackson, Research Ecologist, at the Desert Botanical Garden in Phoenix, 602-941-1225.



Publications

The Integrated Environmental Plan for the U.S.-Mexico Border Area

This report is available from EPA International Activities Office, 401 M ST. SW, Washington, DC 20460.

This EPA study outlines steps to improve the water quality and environment along the U.S.-Mexico border. Problem areas are identified and recommendations are provided.

The Gila Basin and the Waters of Southern Arizona

John A. Folk-Williams, with photographs by Michael Collier and John Running. \$15 from Western Network, 1215 Paseo de Peralta, Santa Fe, New Mexico 87501; 505-982-9805.

This publication describes water use and management in the Gila Basin and the critical policy questions facing this region. The study highlights efforts to resolve disputes involving Indian water rights. Other sections summarize the history and present extent of water use in the mainstem of the Gila and its major tributaries. Also addressed are water transfers, the adjudication process, the CAP, and water quality.

March 1992 Water-Related Events in Arizona

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Casa del Agua	2 Yav Co Flood Ctrl	3 Tuc CWAC Gila Box Meeting	4 Hazardous Waste Training	5 AZ Rainforest Final AMA GUAC	6	7
8 Casa del Agua	9 CAP Environmen- tal Scoping, Tuc	10 CAP Environ- mental Scoping, Avra Valley	11 Phx AMA GUAC AWS Rules	12 AWS Rules 12th AZ Ag Day	13 Tuc Water Auth	14
15 Casa del Agua	16	17 AWS Rules	18 AWS Rules	19 Gila Box PAG Water Qual Pres AMA GUAC	20 Lake Improve- ment Workshop	21 Tuc AMA GUAC Guevabi Ranch
22 Casa del Agua	23	24	25	26	27	28
29 Casa del Agua	30	31 Browley Wash	Apr 1	Apr 2	Apr 3	Apr 4-11 Apr 4 Water Awareness Wk for AMWUA

Calendar of Events

RECURRING

Arizona Rainforest Alliance. 1st & 3rd Thursdays of the month. UA Student Union Rm. 280, Tucson. Contact: Jeff/Julia 602-621-6401; 738 N. 5th Ave., Tucson 85705.

Arizona Water Commission. No meeting in March.

Casa Del Agua water conservation tours hourly Sundays noon to 4 p.m., 4366 N. Stanley, Tucson. Contact: 602-881-3939.

City of Tucson Citizens Water Advisory Committee. 7:00 a.m., 1st Tuesday of the month. 310 W. Alameda, Tucson. Contact: Trish Williamson 602-791-4331.

Pima Association Of Governments/ Water Quality Subcommittee. 9:30 a.m., 3rd Thursday of the month. 177 N Church Ave., Tucson. Contact: Gail Cushner 602-792-1093.

Pinal AMA, GUAC. March 5, 7:00 p.m., Pinal AMA Office, 901 E. Cottonwood Lane, Suite B, Casa Grande.

Phoenix AMA, GUAC. March 11, 9:30 a.m., Phoenix AMA offices, 15 South 15th Ave. Phoenix.

Prescott AMA, GUAC. February 19, 10:00 a.m.. Prescott AMA offices, 1316 Iron Springs Road, Prescott.

Tucson AMA, GUAC. February 21, 9:00 a.m.. Tucson AMA offices, 400 West Congress, Suite 518, Tucson.

Tucson Augmentation Authority. 2nd Friday of the month,

Water Resources Research Center, 350 N. Campbell, Tucson. Contact: Shelley Stefanski 602-326-8999.

Yavapai County Flood Control District. 1st Monday of the month in Prescott; 4th Monday of month in Camp Verde. Contact: Y.C.F.C.D., 255 E. Gurley, Prescott 86301.

MARCH

Various times & locations. Contact: The nearest EPA office for details.

Environmental Protection - Planning, Law & Design Guidelines

Groundwater Pollution & Hydrology

Underground & Above Ground Storage Tanks

Sewer System Infrastructure Analysis & Rehabilitation

3 (Tue) Gila Box Public Meeting. 10:00 a.m. - 3:30 p.m. Dragoon; Amerind Foundation. Contact: BLM, Dianne Drobka 602-428-4040.

4 (Wed) 8 - Hour Hazardous Waste Site Worker Health & Safety Refresher Training. Mesa. Contact: Center for Environmental Studies, ASU, 602-965-1850.

9 (Mon) CAP Tucson Aqueduct System Reliability Scoping Meeting. 6:00 p.m., Tucson Convention Center, Gila/Coconino Room. Contact: Dave Nelson, CAP 602-870-2136.

continued on following page

March Events, cont. from previous page

10 (Tue) CAP Tucson Aqueduct Reliability Scoping Meeting. 6:00 p.m., Vesey School Cafeteria, 5005 South Butts, Avra Valley. Contact: Dave Nelson, CAP, 602-870-6768.

11 (Wed) Assured Water Supply Rules Workshop. 7:00 p.m., Maricopa County BoS Auditorium, 301 W. Jefferson, Phoenix. Contact: ADWR, 602-542-1553.

12 (Thu) Assured Water Supply Rules Workshop. 7:00 p.m., Casa Grande City Council Chambers, 300 E. 4th St., Casa Grande.

12 (Thu) 12th Annual Arizona Agriculture Day. Patriot's Park, Phoenix. Contact: 602-967-8714.

17 (Tue) Assured Water Supply Rules Workshop. 7:00 p.m., Prescott City Council Chambers, 201 S. Cortez, Prescott. Contact Prescott AMA, 602-778-7202.

18 (Wed) Assured Water Supply Rules Workshop. 7:00 p.m., Pima County BoS Hearing Rm, 110 W. Congress, 1st Floor, Tucson.

19 (Thu) Gila Box Public Meeting. 10:00 a.m. - 4:00 p.m., BLM Safford District Office. Contact: BLM, Dianne Drobka 602-428-4040

20 (Fri) State Lake Improvement Fund Expert Workshop. Contact: Peggy A. Tabor, Arizona State Parks, 800 W. Washington, Suite 415, Phoenix, AZ 85007. 602-542-1996.

21 (Sat) Tour Through Guevabi Ranch. 1:30 p.m.. Contact: Friends of the Santa Cruz River, P.O. Box 154, Tumacacori, AZ 85640.

31 (Tue) Brawley Wash Natural Resource Plan Public Review Meeting. Tucson. Contact: P.C. Board of Supervisors, 602-740-8126.

UPCOMING

4-11 APRIL (Sat-Sun) Water Awareness Week for all Arizona Municipal Water Utility Association member cities.

6-9 APRIL (Mon-Thu) Global Warming - A Call for International Coordination. Chicago. Contact: SUPCON International, One Heritage Plaza, Woodridge, IL 60517. 708-910-1551.

10-11 APRIL (Fri-Sat) Arizona Riparian Council Meeting. Las Campañas Inn, Cottonwood. Contact: Andy Laurenzi 602-622-3861.

14 APRIL (Tue) Gila Box Field Trip. 8:30 a.m. - 4:30

p.m., Meet at BLM Safford District Office; Public is welcome if they provide own transportation. Contact: BLM, Dianne Drobka 602-428-4040.

15 APRIL (Wed) 2nd Annual Hydrology Research Exposition. UA, Tucson. Contact: Dr. Gray Wilson, Dept. of Hydrology and Water Resources, 602-621-9108.

15 APRIL (Wed) Kino's Unforeseen Legacy: The Ecological Consequences Of Missionization In The Pimeria Alta. 7:30 p.m. - 9:00 p.m. UA, Education Bldg, Kiva Auditorium, Tucson. Contact: The Udall Center 602-621-7189.

15 APRIL (Wed) 11th Annual Kisiel Memorial Lecture. Werner Stumm, Director, Swiss Federal Institute for Water Resources and Water Pollution Control, "Surface Chemical Theory and Predicting the Distribution of Contaminants in the Aquatic Environment." Dept. of Hydrology and Water Resources, UA. 3:00 p.m., UA Center for Creative Photography, Tucson. Contact: Fran Janssen 602-621-7120.

20-21 APRIL (Mon-Tue) Verde River Management Conference. Prescott. Contact: Cocopah RC&D, Carlton Camp, 602-639-8110.

25-26 APRIL (Sat-Sun) Earthfest '92. Scottsdale. Contact: Valley Forward Association 602-952-1300.

29 APRIL (Wed) WRRC External Advisory Panel. 11:00 a.m. - 1:30 p.m., Phoenix, ADWR, 15 S. 15th Ave. Contact: Water Resources Research Center 602-792-9591.

6 MAY (Wed) Politics, Trade, and Water Policy: The U.S. - Mexico Relationship. 7:30 p.m. - 9:00 p.m., UA, Education Building, Kiva Auditorium, Tucson. Contact: The Udall Center, 602-621-7198.

9-13 MAY (Sat-Wed) 6th National Outdoor Action Conference. Las Vegas, NV. Contact: National Groundwater Association, 6375 Riverside Drive, Dublin, OH 43017.

19-21 MAY (Tue-Thu) Arizona Outdoor Recreation Coordinating Commission Workshop. Contact: Peggy A. Tabor, Arizona State Parks, 880 W. Washington, Suite 415, Phoenix, AZ 85007, 602-542-1996.

The input we received while planning AWR indicated that the calendar represents a much wanted and needed service. The calendar profiles the Arizona Water Community, noting organizations, their interests and activities. In a sense, the calendar tells who is doing what. As a result, we are striving to make the calendar the most complete such listing in Arizona — and the most informative. Please notify us of all water-related events in which you or your organization may be involved.

ACC procedures, cont. from page 4

HB 2531 also directs the Attorney General to act as ACC attorney on utility matters. The Attorney General arguably would be better able to objectively evaluate all proposed ACC actions than its present in-house staff of attorneys. The bill further proposes that administrative law judges conduct ACC hearings, replacing the current practice of ACC-employed hearing officers conducting contested cases. These changes are intended to ensure more objective case hearings.

The proposed legislation also imposes time limits within which the ACC must issue final decisions on rate applications. Currently, this proceeding can take up to 18 months. HB 2531 addresses this situation by allowing utilities to set interim rates under bond. The bill also allows utilities to use surcharges to recover increases in certain narrowly defined operating costs outside their control, such as energy costs and property taxes. A utility would not have to seek recovery of these operating costs through potentially costly general rate cases.

Another pending legislative action, House Concurrent Resolution 2028, would allow a vote on amending the Arizona Constitution to increase ACC membership from three to five persons. Potential benefits include greater diversity of backgrounds and more Commissioners to share the hearing load.



Announcements

Old Water Artifacts Sought

Wanted: ice tongs, washboards, drinking water dippers, divining rods, ice window cards, canvas water bags, assorted old photos or models and other such materials and artifacts having to do with water. This paraphernalia will be used to teach Arizona students about water, and contributions of materials or information about their availability are being sought.

Project WET (Water Education for Teachers) is gathering such a collection to use in its "Liquid Treasure: Arizona's Water Resources History Project." Materials will be packed in trunks for use by teachers who will have students exercise their imaginations by attempting to identify the artifacts and tell what they have to do with water and the history of Arizona. The best artifacts are those that children today cannot readily identify.

Funded by Western Watercourse at Montana State University, WET is a joint project of the University of Arizona's Cooperative Extension Program, UA's Water Resources Research Center, and the 4-H Youth Development. Contact Larry Sullivan at 602-792-9591 to contribute material or provide information.

CAP Info-Line Now Operating — Brochures Available

Tucson Water's Central Arizona Project Info-Line is now operating. Call 791-4CAP for updated information about the CAP and Tucson Water Treatment Plant.

Tucson Water also has published an overview brochure about the Central Arizona Project. This comprehensive brochure has several inserts providing information on the history and cost of the CAP, the Tucson Water Treatment Plant, and water quality. The CAP overview brochure is available at the Tucson Water Conservation Office, or by calling the CAP Info-Line at 791-4CAP.



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