

Yuma Agriculture Water – Rights and Supply

Yuma's Agriculture Water: What You Need To Know

Yuma Agriculture Water Conference

January 13, 2016

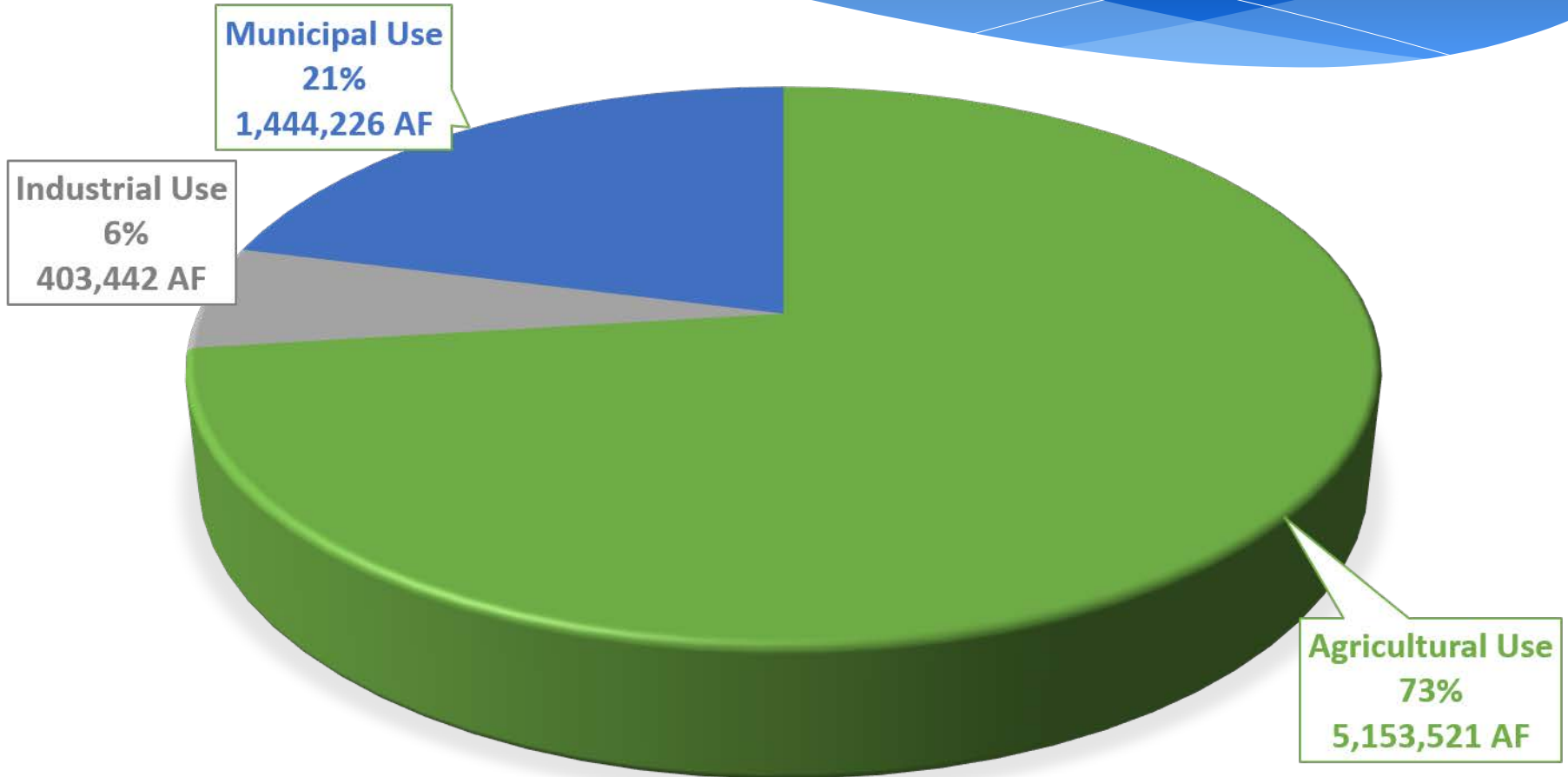


*Thomas Buschatzke, Director
Arizona Department of Water Resources*

Arizona's Water Supply Annual Water Budget 2014

Water Source	Million Acre-Feet (MAF)		% of Total
SURFACE WATER			
Colorado River		2.8	40 %
<i>CAP</i>	<i>1.6</i>		<i>23%</i>
<i>On-River</i>	<i>1.2</i>		<i>17%</i>
In-State Rivers		1.2	17%
<i>Salt-Verde</i>	<i>.7</i>		
GROUNDWATER		2.8	40%
RECLAIMED WATER		0.2	3%
Total		7 MAF	

Arizona's Water Use by Sector (2014)



■ Agricultural ■ Industrial ■ Municipal

Colorado River Basin Allocations

Upper Basin (7.5 maf)

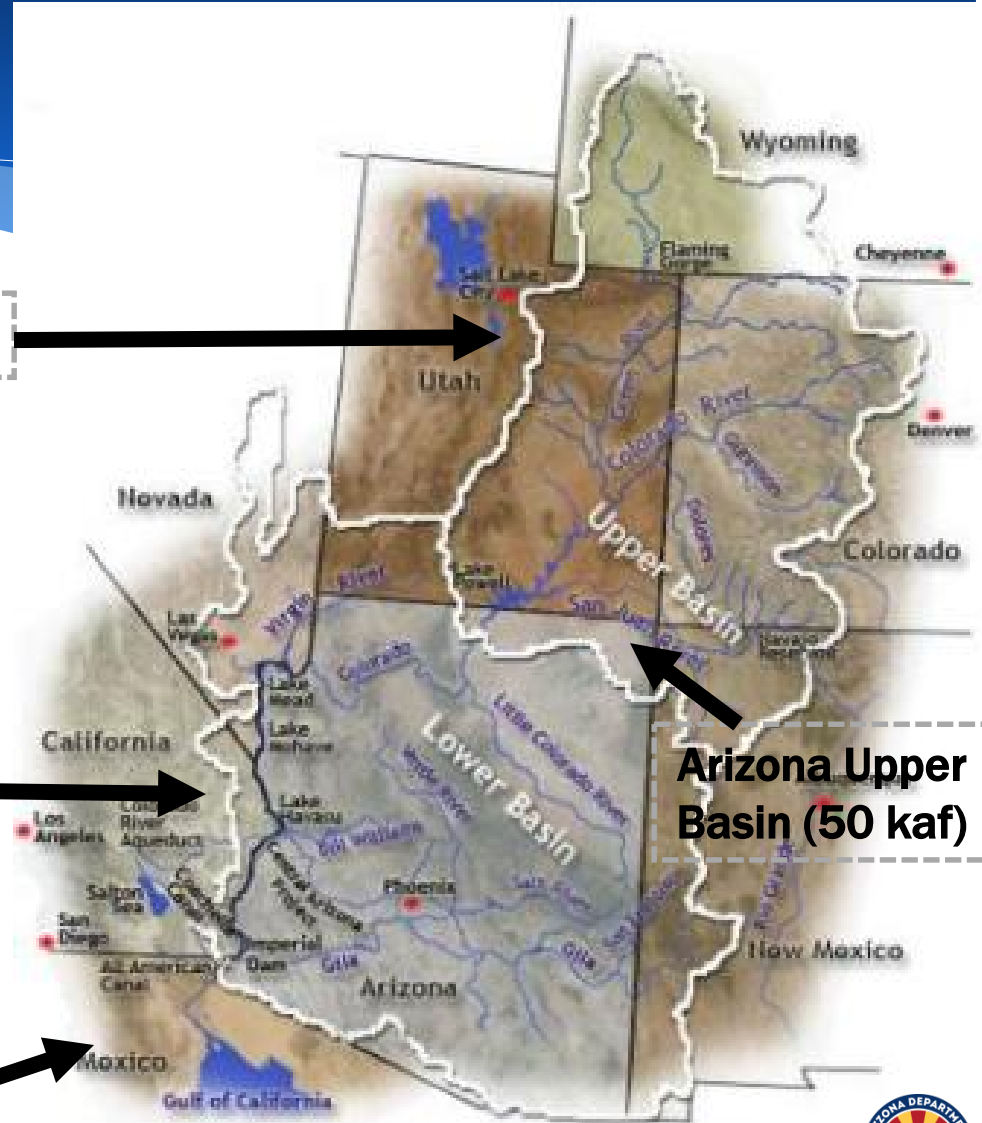
Lower Basin (7.5 maf)

CA - 4.4 maf

AZ - 2.8 maf

NV - 0.3 maf

Mexico 1.5 maf



Arizona's Colorado River Water Allocation

- **85 On-River contracts (including CAP)**
 - Priority based system
 - Largest number of contracts among all the Lower Basin States
 - Uses include agriculture, municipal & industrial, wildlife refuges, military reservations and Indian Tribes/Communities
- **Mainstem Consumptive use – 1.2 maf**
- **CAP average annual delivery – 1.6 maf**



Arizona Department of Water Resources' Authority

ADWR is the state entity charged with promoting, protecting, and comprehensively managing Arizona's annual apportionment of 2.8 million acre-feet of Colorado River water.

- A.R.S Section 45-105: “... the Director is responsible for the water management of the state.”
- A.R.S. 45-107: Cooperation with the Secretary of the Interior of the United States
 - A.R.S. 45-107(A). “The director is authorized, for and on behalf of the state of Arizona, to consult, advise and cooperate with the secretary of the interior of the United States...” regarding Colorado River issues and contracts
- A.R.S. 45-106: “An agreement entered into between the director and the United States or a state or government involving a sovereign right or claim of this state is not effective unless approved by the legislature by concurrent resolution.”



Mainstem Colorado River Water Priority System

- 1st Priority (P1) are present perfected rights as described by decree (AZ v. CA, 2006 consolidated)
- 2nd Priority (P2) are federal reservations and perfected rights established before 9/30/1968
- 3rd Priority (P3) are for water users that executed contracts with BOR before 9/30/1968
- 4th Priority (P4) are for water users with contracts, reservations or other rights after 9/30/1968
- 5th and 6th Priority are for unused Arizona entitlements and surplus water

Who holds Contracts? What are their Priorities?

- Large P1 Contract Holders include the Cocopah Indian Reservation, Fort Yuma Indian Reservation, Unit B Irrigation and Drainage District, Yuma County Water Users, City of Yuma
- Large P2 Contract Holders include Marine Corps Air Station and Yuma Proving Ground

Who holds Contracts? What are their Priorities?

- Large P3 Contract Holders include Gila Monster Farms, North Gila Valley Irrigation District, Unit B Irrigation and Drainage District, Wellton-Mohawk IDD, Yuma Irrigation District, Yuma Mesa IDD, City of Yuma
- P4 Contract Holders include Arizona State Land Department, Gila Monster Farms, Cocopah Indian Reservation and several other private agricultural operations

Contracts

- **Contracts between the Secretary of the Interior and water users are administered by the US Bureau of Reclamation**
- **State of Arizona holder of Master Contract (1944 Contract)**
- **Director consults with Arizona water users and makes recommendations to the US Secretary of the Interior**
 - New entitlements
 - Contract actions: transfers, assignments, leases and conveyances
- **Department's Role**
 - A.R.S. 45-107(D) – entities are required to consult with and obtain the advice of the Director
 - Recommendation process
 - Series of consultations with Reclamation Contract Officer, Solicitor and water user



Colorado River Transfers

- Transfers pursuant to ADWR's Policy and Procedure for Transferring an Entitlement of Colorado River Water
 - Director will review transfers for the purpose of determining the potential impacts caused by redistribution of water
 - Two-party agreements between a willing buyer and a willing seller
 - Priority given to keeping an entitlement available for the benefit of the area it was intended to serve
 - Ensures reasonable use and review of impacts
 - Provides recommendation to Reclamation
 - Some mainstem users have expressed concerns regarding transfers off-river

Water Right Priority System Mainstem

Priority	Water Right Holder
Priority 1	In general are held by Indian Reservations, Irrigation Water Projects (Yuma County Water Users Association etc.), and small present perfected rights
Priority 2 & 3	In general are held by Federal Wildlife refuges, Military installations and Irrigation Water Projects (Wellton-Mohawk Irrigation and Drainage District)
Priority 4	Generally held by Municipal & Industrial (Including CAP) and small irrigation uses.
Priorities 5 & 6	Generally held by Arizona Game and Fish Commission, APS, ASLD, some ag uses, the Hopi Tribe and Parker



2007 Guidelines Shortage Sharing

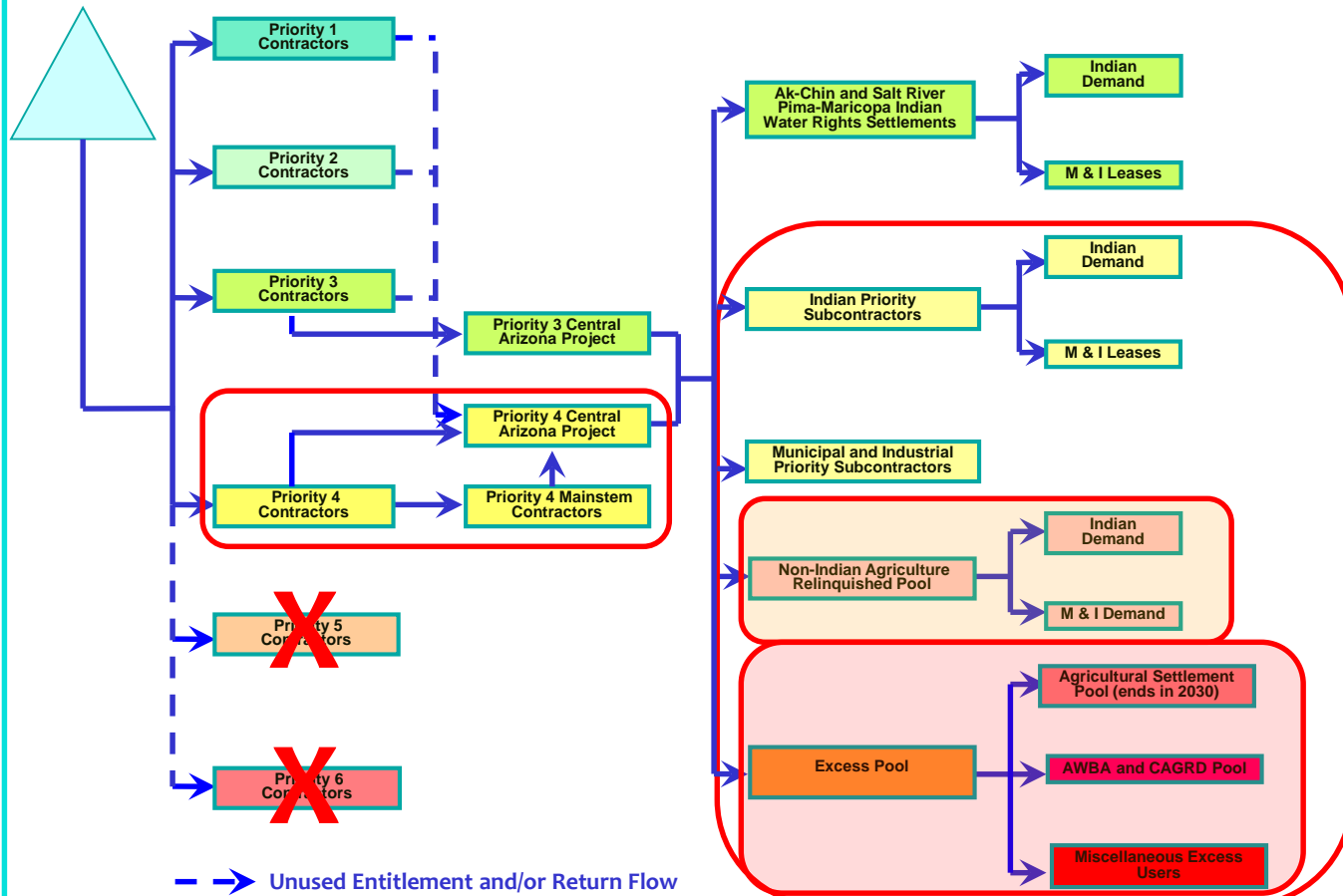
Lake Mead Elevation	Arizona Reduction	Nevada Reduction	Mexico Reduction	California Reduction
1075'	320,000 AF	13,000 AF	50,000 AF	0
1050'	400,000 AF	17,000 AF	70,000 AF	0
1025'	480,000 AF	20,000 AF	125,000 AF	0

Probabilities of Lower Colorado River Basin Shortage

	2016	2017	2018	2019	2020
Probability of any level of shortage (Mead \leq 1,075 ft.)	0	18	52	65	59
1 st level shortage (Mead \leq 1,075 and \geq 1,050 ft)	0	18	42	47	35
2 nd level shortage (Mead $<$ 1,050 and \geq 1,025 ft)	0	0	10	14	18
3 rd level shortage (Mead $<$ 1,025)	0	0	0	4	7

Source: U.S. Bureau of Reclamation CRSS Model Run – August 2015

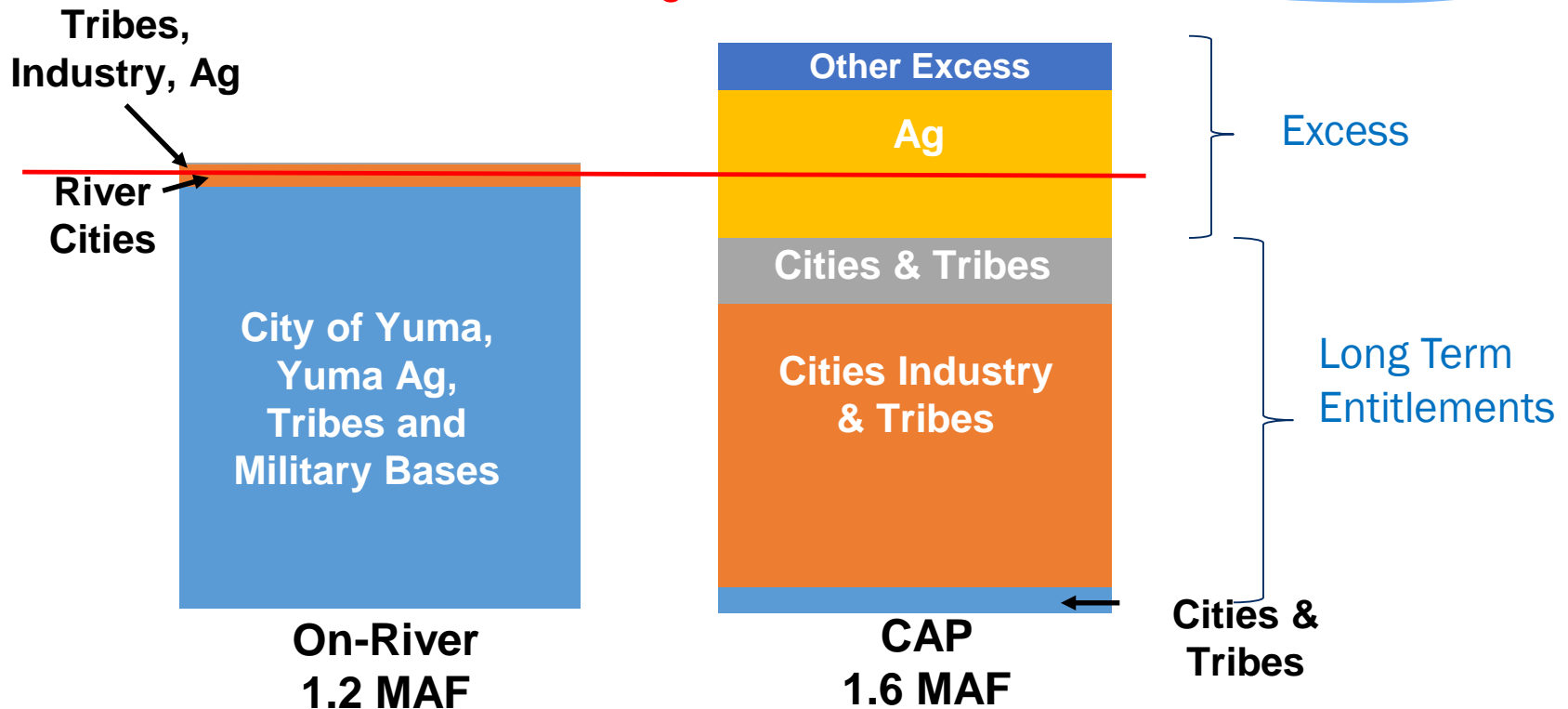
SCHEMATIC OF DELIVERY ARIZONA'S COLORADO RIVER ALLOCATION OF 2.8 MILLION ACRE-FEET (MAF)



Arizona Shortage in the Near-Term

Arizona's Allocation – 2.8 MAF

Tier 1 Shortage = 320,000 AF



Efforts to address challenges on the Colorado River Drought Contingency Planning

- ADWR Director serves as Arizona's Principal on matters relating to the Colorado River (A.R.S. 45-107(D))
- Discussions between:
 - Basin States
 - Department of the Interior
 - Other contract holders
- Goal of discussions:
 - Restore risks to levels achieved in the 2007 Guidelines
 - Conserve 1.5 – 3.0 MAF in Lake Mead over the next 5 years
 - Reduce the risks of Lake Mead falling below 1,000 ft. elevation as we saw in the 2013 model projections
- Memorandum of Understanding
 - Central Arizona Project = 345,000 AF
 - Metropolitan Water District = 300,000 AF
 - Southern Nevada Water Authority = 45,000 AF
 - Bureau of Reclamation = 50,000 AF

Bypass Flows Work Group

- Stakeholder process to identify and analyze options to address the Bypass Flow issue
- Workgroup objective is to aid in identifying, analyzing and recommending a set of options that collectively conserve at least 100,000 AF annually in Lake Mead
- Bypass Flows are primarily agricultural return flow water from Wellton-Mohawk Irrigation and Drainage District
 - Due to salinity issues, flows bypass the Colorado River and are conveyed by the bypass drain to Mexico but are not counted towards the Mexican Treaty obligation
- Co-chaired by ADWR and BOR
- Participants in the workgroup include: BOR, ADWR, CAWCD, Yuma area agricultural water users, the Environmental Defense Fund, the Nature Conservancy, California and Nevada

Minute 32X

- Minute Negotiating Group (MNG), which includes reps of both countries, as well as the Upper and Lower Basin States, continues to meet monthly to negotiate terms of “Minute 32X,” a successor to Minute 319.
- MNG has delegated certain tasks to binational workgroups (Salinity, Projects, Environmental, and Basin Conditions and Hydrology), with interim reports due in January and final reports due in March.
- The two countries intend to agree on general terms for the next minute by June of 2016.

Questions?

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PROTECTING
ARIZONA'S WATER SUPPLIES
for **ITS NEXT CENTURY**