Public Notice Pursuant to A.R.S. § 38-431.02

ARIZONA MUNICIPAL WATER USERS ASSOCIATION MANAGEMENT BOARD

MEETING NOTICE AND AGENDA

Wednesday, February 14, 2018 – 10:00 a.m.

Arizona Municipal Water Users Association
Board Conference Room
3003 North Central Avenue, Suite 1550
Phoenix, Arizona 85012

A. Call to Order

B. General Business—Items for Discussion and Possible Action

1. Approval of the Minutes from the January 10, 2018 Meeting
2. Schedule Next Meeting Date: Wednesday, March 14, 2018, 10:00 a.m.
3. 2018 Legislative Update
4. Analysis of Water Transfers
5. Contract for Reprinting of Landscape Plants for the Arizona Desert Publication
6. AMWUA Quarterly Financial Statements – Second Quarter

C. Management Board Members' Updates

D. Executive Director's Report

E. Future Agenda Items

F. Adjournment

*The order of the agenda may be altered or changed by the AMWUA Management Board.

More information about AMWUA public meetings is available in the AMWUA office, online at www.amwua.org/what-we-do/public-meetings, or by request.

AGENDA ITEM #1

MANAGEMENT BOARD

MEETING MINUTES

January 10, 2018

VOTING MEMBERS PRESENT

Mr. Kevin Artz, Avondale, Chairman
Mr. Brian Biesemeyer, Scottsdale
Mr. Eric Braun for Ms. Jessica Marlow, Gilbert
Mr. John Knudson, Chandler
Mr. Craig Johnson, Glendale
Ms. Karen Peters, Phoenix
Mr. Javier Setovich, Goodyear
Mr. Mike Weber, Peoria

VOTING MEMBERS NOT PRESENT – EXCUSED

Ms. Holly Rosenthal, Tempe
Mr. Jake West, Mesa

OTHERS PRESENT

Barry Aarons, The Aarons Co.
Gretchen Baumgardner, Tempe
Cindy Blackmore, Avondale
Cynthia Campbell, Phoenix
Gregg Capps, Chandler
Barbara Chappell, Goodyear
Miranda Dewitt, Mesa
Alan Dulaney, Peoria
Kathy Ferris, AMWUA
Brett Fleck, AMWUA
Mark Holmes, Goodyear
Lacey James, Avondale
Sam Jaskolski, AMWUA
Pat Kossan, AMWUA
Frank Milam, Phoenix
Brian Payne, AMWUA
Diana Piña, AMWUA
Kathy Rall, Scottsdale
Richard Siegel, SRP
Tony Staffaroni, CAP
Drew Swieczkowski, Glendale
Warren Tenney, AMWUA
Theresa Ulmer, Ulmer Consulting
Carol Ward-Morris, AMWUA

A. Call to Order

Mr. Artz called the meeting to order at 10:04 a.m.

B. General Business – Items for Discussion and Possible Action

1. Approval of the Minutes from the December 13, 2017 Meeting

Upon a motion by Ms. Peters and second by Mr. Setovich, the AMWUA Management Board unanimously approved the December 13, 2017 meeting minutes.

2. Next meeting scheduled: Wednesday, February 14, 2018, 10:00 a.m., in the AMWUA office

3. Governor's Water Solutions Conversation & 2018 Legislative Update

Mr. Tenney reported that the Legislative Session began on Monday with the Governor's State of the State address, in which Governor Ducey recognized Arizona's reputation as a national leader in water management and the importance of continuing that legacy in future policies as well as ensuring Arizona speaks with one voice on water issues. He said the Governor's Office has not put any water legislation forward yet and it appears that the legislative package will be smaller than what was originally anticipated when the Governor's Water Solutions Conversation began last summer. He noted that the Governor's Office and the Arizona Department of Water Resources (ADWR) are having positive discussions with legislative leadership about putting together legislation that could pass. He said there has not been any other water legislation proposed so far in the first days of the session.

Mr. Tenney noted that AMWUA is also monitoring legislation that may not be directly about water, but could still impact municipalities and their water services. He said he circulated one such bill yesterday among the Water Resources Advisory Group (WRAG) to get feedback about if the bill is of concern.

Mr. Aarons gave an update on activities at the Legislature. He noted that some legislators are offering their own proposals on water, some of which the Governor's Office has baulked. He said he has a sense that water in Legislature this session may be an all or nothing package. Mr. Aarons stated that conversations are continuing and he continues to meet with legislators. Ms. Ulmer added that they will be working with legislators to make sure water does not become an intensely partisan issue.

4. Analysis of Water Transfers

Mr. Tenney stated that the topic of water transfers could arise this legislative session as the issue has risen in priority with the Central Arizona Groundwater Replenishment District's (CAGRD) proposed acquisition of 2,200 acres of farmland with Colorado River rights in Mohave County.

Mr. Payne reviewed a presentation on the role of water transfers in Arizona's water management, particularly in regard to Colorado River water. He highlighted the history of water transfers in Arizona, types of transfers, the impact on municipalities, benefits and challenges, and what water transfers could mean for Arizona's water future. Mr. Payne said this presentation is an overview of the analysis AMWUA is drafting that will be discussed with the WRAG for feedback and then brought to the Management Board for review in February.

Ms. Peters asked if there is any idea of legislation that may be proposed by Mohave County. Mr. Tenney and Mr. Payne replied that they had not heard anything specific.

Ms. Ferris commented that because the Mohave County water transfer is Colorado River water, it is controlled by the US Secretary of the Interior, not by state law. She said under state law, the role of ADWR is to review the proposed transfer, conduct public hearings, get input, and then make a recommendation to the Secretary. She noted that the role of the Legislature is rather limited because it is the Secretary's decision.

Ms. Peters asked if the ADWR recommendation is binding. Mr. Payne said ADWR's recommendation is advisory only and not binding. Ms. Ferris said, historically, the Secretary has listened to ADWR's recommendation and respected the Department's position on how Arizona's entitlement of Colorado River water is to be used and allocated. Mr. Tenney stated that Mr. Payne's analysis looks into ADWR's role, the Federal role, and how the two entities interact. He said AMWUA will dive deeper into that subject at the February Management Board meeting.

Ms. Peters asked if there was a willing seller in the Mohave transfer. Mr. Payne said yes, an entity from New York is interested in selling its land as an investment, which makes the issue more controversial.

5. Presentation on Scottsdale Water Citizen Academy

Mr. Biesemeyer shared a presentation on the Scottsdale Water Citizen Academy. He stated that Scottsdale is committed to continual improvement and uses the Effective Utility Management (EUM) process, which identified "customer satisfaction" and "stakeholder understanding" in 2015/2016. He said the Water Citizen Academy project was chosen to address both attributes. Mr. Biesemeyer highlighted an outline of the academy including presentations, tours, demonstrations, giveaways, logistics, and graduation; how the city recruits participants; feedback received from participants; survey results and lessons learned; and changes made to the program over time.

Mr. Setovich thanked Mr. Biesemeyer for sharing information about Scottsdale's experience creating and administering its Water Citizen Academy. Mr. Setovich noted that Goodyear is also working on public outreach and he would like to implement some of Scottsdale's ideas.

Mr. Johnson emphasized the importance of providing tours and presentations to citizens because informing the public gives them a better understanding of water services and makes them allies to the utility.

Mr. Knudson echoed Mr. Johnson's sentiments of the power of having a friend to the utility, especially with social media because neighbors can correct each other before incorrect information is spread.

Mr. Artz and Mr. Biesemeyer noted Scottsdale's survey results that show Scottsdale Water Citizen Academy participants rated the taste of the water at the end of the course at nearly 50 percent greater than at the beginning of the course.

Mr. Braun asked if Scottsdale was considering making a light version of its Water Citizen Academy that could be viewed on YouTube in order to reach larger audiences. Mr. Biesemeyer said a number of informative videos have been shared on Scottsdale's website and creating a complete video course has been considered, but not firmed.

C. Board Members' Updates

The Management Board members were invited to report on water activities in their city/town.

Avondale: Mr. Artz reported that Avondale is going through its public hearing process next Tuesday for a rate increase. He said Avondale is in year three of a five-year program to increase the rates at six percent (6%) a year. He noted that the process has gone smoothly so far and they expect it will move forward.

D. Executive Director's Report

Mr. Tenney reported that ADWR, CAWCD, and the Arizona Water Banking Authority are initiating the Recovery Planning Advisory Group. Mr. Tenney was asked to participate in the Recovery Planning Advisory Group and will be discussing the issues with the AMWUA members.

Mr. Tenney reported that snow in the Colorado River Basin is at 66% normal and for the water year to date in Arizona, the Salt and Verde watershed is experiencing the third driest ever since records were kept 118 years ago. He said this information serves as a strong reminder to the Legislature and others that hoping for a good winter is not an action plan; we need to proactively build on previous efforts to protect Arizona's water supplies.

Mr. Tenney encouraged the Management Board members to reach out to their conservation staffs about SRP energy rebates available to municipalities to increase efficiency that were reported at yesterday's Conservation Committee meeting.

Mr. Tenney reported that Mary Ann Dickinson of the Alliance for Water Efficiency will be presenting at this month's AMWUA Board meeting to provide an update to the Board on WaterSense, tax parity for conservation rebates, and other water efficiency work that the Alliance does for its member utilities.

Mr. Tenney distributed copies of the AMWUA 2017 Achievements brochure to the Management Board members for them to share within their municipality to familiarize others

with AMWUA. The AMWUA Board was mailed copies of the AMWUA 2017 Achievements brochure to share amongst their fellow elected officials.

E. Future Agenda Items

There were no requests for future agenda items.

F. Adjournment

With no further items to discuss, upon a motion by Mr. Biesemeyer and a second by Mr. Johnson, Mr. Artz unanimously adjourned the meeting at 10:59 a.m.

AGENDA ITEM #3

MANAGEMENT BOARD

INFORMATION SUMMARY

February 14, 2018

2018 Legislative Update

STRATEGIC PLAN REFERENCE

Objectives – Safeguard Water Supplies; Reinforce Groundwater Management; Prepare for Impacts of Drought & Shortage; Augment Supplies; Elevate the Benefit of Water Reuse; Minimize Financial Impacts
Collaboration – Legislature; Arizona Department of Water Resources; Salt River Project; Central Arizona Project; Water Community

SUMMARY

At the January 25, 2018 AMWUA Board meeting, the Board took positions on legislation that had been introduced up to that time. Subsequently, Senator Griffin and Representative Bowers introduced an omnibus bill of water issues with several individual water-related bills. This summary will first discuss the key water legislation introduced by Senator Griffin and Representative Bowers. It will then discuss additional legislation of interest that has been introduced since the last AMWUA Board meeting. The remainder of this summary will review legislation for which the AMWUA Board has taken positions.

SB 1507 & HB 2512: Water program amendments (Griffin, Bowers). These two identical omnibus bills, introduced by Senator Griffin and Representative Bowers, include verbatim the provisions found in SB 1508 through SB 1516 (see explanations below). In addition, these bills include a provision that appears to require both the Arizona Department of Water Resources (ADWR) and the Central Arizona Water Conservation District (CAWCD) to inform the other if one is a party to "discussions on or negotiations of interstate agreements or agreements with the United States involving…Colorado River water." ADWR and the Governor's Office are not in support of these omnibus bills as currently written.

AMWUA staff has several concerns with this legislation. First, the proposed language raises questions rather than clarifies many of the issues it addresses, and in some cases, it is regressive. Second, the bills include language that AMWUA actively opposed in 2016 that weakens the 100-year adequate water supply requirement. AMWUA staff believes this language would have a negative effect on water management in the State, particularly in key areas outside of Active Management Areas (AMAs). Most importantly, the language does not address the immediate

water challenges facing Arizona and does not provide tools to protect Arizona's Colorado River water, which is important not just to the AMWUA cities but the whole State.

As of this writing, Representative Bowers and Senator Griffin have held informational hearings on these two bills in their respective committees. No votes were taken. At those meetings, stakeholders presented a wide range of perspectives. Representative Bowers and Senator Griffin have both stated that they expect that these bills will be amended after thorough discussion with a broad group of stakeholders. AMWUA will participate in that process and keep AMWUA's members informed. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Oppose

SB 1508 & HB 2551: Water; desalination action plan (Griffin, Bowers). These bills require the ADWR Director to prepare a desalination action plan that, among other things, considers costs of brackish water treatment, and identifies areas of the State where brackish groundwater exists and areas that could benefit from treated brackish supplies. The plan may also evaluate potential binational agreements or projects with respect to ocean desalination. The Director must submit a report to designated state leadership by September 30th, 2019.

Desalination has an important role to play in Arizona's water management, however this language appears to codify what the State is largely already doing as part of the Governor's Water Augmentation Council. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Support

SB 1509: Water; interstate sales (Griffin). Under current law, a person may not transport water from Arizona to another state without approval from the Director of ADWR. This bill states that in addition to the Director, the Legislature must approve any transportation of water from the State, whether it be surface water, groundwater, Colorado River water, or other water. The bill states that the Legislature shall consider any such action after the Director's approval. Although the intent of this bill is positive, there are concerns that the bill raises issues under the United States Constitution. For this reason, AMWUA staff recommends monitoring the bill. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Monitor

SB 1510: Irrigation grandfathered right; containerized plants (Griffin). This bill states that in an initial Active Management Area, a person who holds a certificate of irrigation grandfathered right may exercise that right to withdraw groundwater to water plants in containers on or above the surface. Among other things, the bill also requires the right holder to separately measure any groundwater used for watering plants in containers and groundwater for irrigation however, the total amount of water may not exceed the amount allowed by the irrigation water duty for the

farm. This proposal was among the issues discussed as part of the Governor's workgroups last year. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Monitor

SB 1511: Pinal AMA; groundwater; extinguishment credits (Griffin). This bill states that by January 1, 2019, the ADWR Director must adopt rules to calculate extinguishment credits in the Pinal AMA. The bill exempts the ADWR Director from certain rulemaking requirements for this purpose. The bill furthermore states that the ADWR Director shall recalculate the amount of groundwater available for use in the AMA for purposes of determining an assured water supply after reviewing and eliminating those proposed uses that are no longer economically practicable for actual development and future use. Under the 100-year assured water supply rules, a farmer within an AMA with irrigation rights can choose to extinguish those rights anytime in exchange for what is called an "extinguishment credit" that can be used to demonstrate a 100-year assured water supply for new development.

The last two legislative sessions, AMWUA opposed bills that sought to weaken the ADWR Director's authority and would have caused increased groundwater pumping in Pinal AMA. During the Governor's Water Solutions Conversation, water users in the Pinal AMA came to a compromise with each other and ADWR on the amount of credits received upon extinguishment. This compromise would have addressed many of the concerns ADWR and AMWUA had; however, this bill does not include the language that was agreed to as part of that process. It also raises significant questions. For example, it may be problematic to expect ADWR to determine what uses of water are "no longer economically practicable for actual development and future use" for purposes of groundwater modeling. AMWUA staff understands that changes to the bills that correspond with the compromise are likely. Senator Griffin and Representative Bowers have indicated a willingness to amend the language to include the compromise, but no amendments have been put forward yet. For this reason, AMWUA staff recommends opposing these bills until the underlying issues are addressed through amended language. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Oppose

SB 1512: Active management areas; sixth management period (Griffin). This bill creates an additional 10-year active management plan—the Sixth Management Plan from 2025 to 2035—under the Groundwater Management Act for each initial Active Management Area. The bill includes language that virtually mirrors the statutory guidance for the previous management plans. The bill also allows the ADWR Director to approve administrative variances from irrigation water duties or conservation requirements for the Fifth and Sixth Management Plans, which is similar to provisions found in statute for previous management plans.

The State proposed during the Governor's Water Solutions Conversation to extend the safe-yield goal for three ten-year management periods. Having only one ten-year period provides only a marginal increase in certainty. For this reason, AMWUA staff supports adding additional

management periods. Arizona's successful economy is directly linked to our planning and investing in our water resource planning. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Monitor

SB 1513: Effluent; recycled water; definition (Griffin). This bill states that for the purposes of ADWR's informational materials, the word "effluent" should be defined as "recycled water." ADWR has raised concerns that this bill could create confusion based on the various regulatory meanings for "effluent", "remediated", "reuse", and "recycled". The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Monitor

SB 1514 & HB 2596: Natural resource conservation districts; administration (Griffin, Toma). These bills place oversight of the Division of Natural Resource Conservation in the Department of Forestry and Fire Management. It currently resides in the State Land Department. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Monitor

SB 1515 & HB 2553: Adequate water supply; county review (Griffin, Bowers). This bill essentially allows a county that is not in an Active Management Area, through a vote of the county board of supervisors, to vote not to readopt the 100-year adequate water supply water requirement if certain conditions are met. The conditions, which relate to the county or largest city in the county, include participation in the following: Groundwater recharge, reclaimed water reuse, water conservation programs, and use of low water use plants in certain publically owned areas. In particular, the bill states that the board of supervisors must review and may, by a unanimous vote, readopt the 100-year requirement within five years of the bill's effective date, and at least every ten years thereafter.

This bill as currently written essentially combines elements from two bills that AMWUA opposed and the Governor vetoed in 2016. The bills were introduced in an attempt to undermine the 100-year adequate water supply requirement in order to build a large-scale development in Sierra Vista. At the present time, there is litigation between the federal government and a local water company over a dispute involving water rights in the Sierra Vista area. At the time, the AMWUA Board wrote letters to Governor Ducey expressing AMWUA's concerns and requesting him to veto both bills. In his veto letter, Governor Ducey stated: "I will not sign legislation that threatens Arizona's water future." The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Oppose

SB 1516: Central Arizona Project; sovereign immunity (Griffin). This bill states that a multi-county water conservation district (i.e. CAWCD) shall not assert the defense of immunity under the Eleventh Amendment in litigation brought by a water user to enforce the terms of a Central Arizona Project (CAP) water delivery contract or subcontract.

As written, the language in this bill could be read to imply that CAWCD does have sovereign immunity under the Eleventh Amendment, and could assert this defense in actions unrelated to the enforcement of subcontracts. AMWUA staff believes that the bill should be worded more broadly to address the concerns raised by the AMWUA Board of Directors. For this reason, AMWUA staff recommends opposing this bill. The Senate version of this bill is scheduled for committee consideration on February 12th.

AMWUA Recommended Position: Oppose

Other Introduced Legislation with Recommended Position

SB 1475 & HB 2581: Ecological water; program; fund (Dalessandro, Gabaldon, and others). These bills establish the Ecological Water Stewardship Program and directs the ADWR Director to adopt rules to carry out its mission. The bills direct the ADWR Director to establish a set of standard measures to define ecological water needs in Arizona, including criteria for examining the relationship between ecological water and groundwater and surface water in Arizona. The bills direct the Director to take all reasonable steps necessary to monitor, maintain, improve and restore the surface water systems of Arizona. After making a determination of the ecological water needs for each watershed or subwatershed, the Director would publish a preliminary report that includes a determination of the ecological water and monitoring methods necessary to maintain and restore freshwater ecosystems. If the Director determines in any watershed or subwatershed that there is insufficient ecological water, the Director shall take all steps necessary to appropriate any unappropriated water to maintain the ecological water requirements or acquire by purchase or lease existing water rights.

These bills would put into statute several provisions touching on water rights that AMWUA staff finds problematic. However, AMWUA staff does not believe that these bills are likely to proceed this legislative session. For that reason, at this time staff recommends monitoring the bills.

AMWUA Recommended Position: Monitor

SB 1493: Environmental quality; dredge, fill permits (Griffin). Under current law, the United States Environmental Protection Agency (EPA) issues permits under the Clean Water Act for the discharge of dredged or fill materials into waters that meet the definition of Waters of the United States. This bill essentially authorizes the Arizona Department of Environmental Quality (ADEQ) to establish a Dredge and Permit Program that is consistent with, and no more stringent than, the federal program. The bill lists requirements for the rules ADEQ would adopt to implement the program. ADEQ and the State are pursuing this legislation as a means of attempting to have

EPA assign responsibility to the State over this federal program. To date, only Michigan and New Jersey have obtained authority from EPA to oversee this program at the state level. AMWUA staff understands that the Governor's Office is supporting this bill along with the business community. This bill passed out of the Senate Natural Resources Committee on February 5th.

AMWUA Recommended Position: Monitor

SB 1494: Environment; underground injection control program (Griffin). The Underground Injection Control Program is a program primarily overseen by EPA in cooperation with ADEQ that regulates the underground injection or discharge of both hazardous and nonhazardous liquid and gas. This bill requires ADEQ to establish a permit program that meets the minimum federal requirements for permitting injection wells in Arizona and requires the ADEQ Director to adopt rules for that purpose. ADEQ and the State are pursuing this legislation as a means of attempting to have EPA assign responsibility to the State over this federal program. To date, only four individual Underground Injection Control permits have been issued in Arizona, primarily for mining purposes. As Arizona looks at using brackish groundwater supplies, some have argued that deep underground injection of brine may be a means of making brackish desalination in Arizona more economically feasible. AMWUA staff understands that the Governor's Office is supporting this bill along with the business community. This bill passed out of the Senate Natural Resources Committee on February 5th.

AMWUA Recommended Position: Monitor

HB 2552: Desalination action study committee (Bowers). This bill establishes a 13-member desalination action study committee comprised of political leaders and representatives from relevant agencies, water users, and other stakeholders. The bill directs the committee to (1) Consider state statutory or regulatory impediments to using high salinity water, (2) Consider the economic impact resulting from the amount and effect of high salinity water, and (3) Submit a report regarding the committee's activities, findings and recommendations on or before December 31, 2018.

AMWUA Recommended Position: Support

HB 2556: Environment; water quality; brine (Nutt and six others). Directs the ADEQ Director to "review existing limitations on the use and reuse of high salinity water, including brine, to determine the potential for improving its quality and suitability for supplementing water supplies in this state."

AMWUA Recommended Position: Support

HB 2608: Well reporting; Mohave, La Paz basins (Cobb). This bill requires the owner of a well in one of four groundwater basins located in Northwest and Western Arizona to annually report groundwater withdrawals, if the well was drilled on or after January 1, 2012 and the well has a capacity of more than 100 gallons per minute. The bill states that a well owner that does not use

a meter can maintain records of the estimated water use. The bill requires reporting for a period of three years, and the bill is repealed after December 31, 2020.

AMWUA Recommended Position: Monitor

Legislation with Formal Positions

The following is an update on the Governor's proposed ADWR budget, as well as bills the AMWUA Board took a position on at the January 25th meeting.

Governor's Budget & ADWR: The Governor's proposed Fiscal Year 2019 budget for ADWR is roughly the same as Fiscal Year 2018. The proposed general fund appropriation for Fiscal Year 2019 is $15.7 million. While this represents a decrease in general fund appropriations from 2018 of $300,000, when other appropriations are included, the total appropriation to ADWR is the same. ADWR's flat budget is significant because many agencies were asked to cut funding to fund education proposals. With respect to staffing, ADWR currently employs about 135 people. ADWR leadership has indicated that under the current budget, the Department likely has funds to increase that number to 150 as needed.

SB 1039: Arizona water protection fund (Griffin). This bill appropriates $1 million from the state general fund in Fiscal Year 2018-2019 to the Arizona Water Protection Fund. The Arizona Water Protection Fund is a state-run program that funds projects to protect and enhance water quality and quantity in Arizona's rivers, streams, and riparian areas. Some of these efforts include revegetation, erosion control, channel stabilization, research, and water conservation. This bill will most likely be part of future budget negotiations. This passed out of the Senate Natural Resources, Energy, and Water Committee on January 22nd.

AMWUA Position: Support

SB 1229: Water infrastructure finance authority; appropriation (Mendez and 16 others). This bill appropriates $30 million from the state general fund to the Water Infrastructure Finance Authority (WIFA). WIFA is a state agency that provides low-interest loans to water providers.

AMWUA Position: Monitor

HB 2203: Wildland fuel loads; watershed protection (Finchem). This bill authorizes a mayor, chairman of the board of supervisors, or a county sheriff to make a formal determination that a "catastrophic wildland fuel load" exists on state or federal land located in the borders of the city, town, or county. After making this determination, the relevant official must consult with the political subdivision's attorney or the attorney general, and notify relevant state and federal officials, including as necessary a demand to the relevant state or federal agency that it address the issue. The bill instructs the mayor, chairman, or a county sheriff to enter into a plan with the federal or state agency to abate the condition. If the mayor, chairman, or county sheriff

determines that the condition exists on federal land and that it poses an immediate threat to the public health, safety, and welfare of the city, town, or county, the official must coordinate with relevant state and federal officials, and in consultation with legal counsel and the attorney general, must pursue all remedies allowed by law. The bill also authorizes the state forester to remove non-native woody biomass or overgrowth biomass from state lands, and enter into agreements with cities, towns, or counties to do so.
This bill is of interest due to the connection between watershed health and water quantity and quality. This bill passed out of the House Land, Agriculture and Rural Affairs Committee on February 1st.

AMWUA Position: Monitor

HB 2214: WQARF; appropriation (Gabaldon). This bill appropriates $15 million from the general fund to the Water Quality Assurance Revolving Fund (WQARF) in addition to any other appropriations made in Fiscal Year 2018-2019. WQARF is a state-sponsored program established by the Legislature to clean up hazardous soil and groundwater contamination.

AMWUA Position: Support

HB 2291: Groundwater basin; department survey (Cobb). This bill requires ADWR to conduct a survey of areas in the groundwater basin of the Upper Colorado River Planning area to determine the status and resiliency of groundwater supplies, and submit a report to the House Speaker, Senate President, legislators in affected areas, and relevant County Supervisors. ADWR would be required to gather extensive data, including well usage information. The bill also allows the County Board of Supervisors to recommend metering and monitoring of wells to ADWR. This bill has not been assigned to a committee.

AMWUA Position: Monitor

HB 2352: Appropriation; lead screening; charter schools (Engel and 14 others). This bill appropriates $100,000 from the general fund in addition to other appropriations for Fiscal Year 2018-2019 to ADEQ for screening for lead in drinking water in charter schools. This bill has not been assigned to a committee.

AMWUA Position: Monitor

HB 2410: Geologists; landscape architects; regulatory repeal (Mosley). This bill eliminates certain Board of Technical Registration requirements and related statutory language for geologists and landscape architects. This bill is similar to provisions in a bill from 2016 that sought to deregulate the professional geological practice. The 2016 bill resulted in a legislative compromise that resulted in the voluntary licensure of geologists. Under current law, geologists make certifications under the groundwater code. This bill has not been assigned to a committee.

AMWUA Position: Oppose

RECOMMENDATION

The Management Board is encouraged to ask questions and discuss any legislation and provide a recommendation to the AMWUA Board of Directors.

AMWUA staff advises the Management Board to recommend the AMWUA Board take the following legislative positions:

Oppose:

SB 1507 & HB 2512: Water program amendments
SB 1511: Pinal AMA; groundwater; extinguishment credits
SB 1515 & HB 2553: Adequate water supply; county review
SB 1516: Central Arizona Project; sovereign immunity

Support:

SB 1508 & HB 2551: Water; desalination action plan
HB 2552: Desalination action study committee
HB 2556: Environment; water quality; brine

Monitor:

SB 1509: Water; interstate sales
SB 1510: Irrigation grandfathered right; containerized plants
SB 1512: Active management areas; sixth management period
SB 1513: Effluent; recycled water; definition
SB 1514 & HB 2596: Natural resource conservation districts; administration
SB 1475 & HB 2581: Ecological water; program; fund
SB 1493: Environmental quality; dredge, fill permits
SB 1494: Environment; underground injection control program
HB 2608: Well reporting; Mohave, La Paz basins

AGENDA ITEM #4

MANAGEMENT BOARD

INFORMATION SUMMARY

February 14, 2018

Analysis of Water Transfers

STRATEGIC PLAN REFERENCE

Objectives – Advocate for Solutions; Safeguard Water Supplies; Reinforce Groundwater Management; Prepare for Impacts of Drought & Shortage; Augment Supplies
Collaboration – Legislature; Arizona Department of Water Resources
Operational Principles – Facilitate our Strength in Numbers; Excel as an Expert and Resource

SUMMARY

At the January 10th Management Board meeting, AMWUA staff introduced the subject of water transfers with a high-level overview. Water transfers have returned to the forefront with the proposed Central Arizona Groundwater Replenishment District (CAGRD) water transfer involving the acquisition of 2,200 acres of farmland with Colorado River rights in Mohave County. It is anticipated that this water transfer will elevate the discussion about such transfers with the Legislature, policymakers, and the Arizona Department of Water Resources (ADWR).

AMWUA thought it was important to elevate our understanding about water transfers. This month, AMWUA staff would like to present an overview of an analysis AMWUA staff recently completed on water transfers. This analysis, *The Transfer and Movement of Water in Arizona*, looks at the history of water transfers in Arizona, categories of transfers, the impact of transfers on municipalities, and what water transfers could mean for Arizona's water future.

RECOMMENDATION

Staff requests that the AMWUA Management Board ask questions and discuss AMWUA's analysis on water transfers that will be presented at the February 14th meeting.

The intent is to present the analysis to the AMWUA Board and then circulate the paper as an educational piece in the water community.

ATTACHMENT

- *The Transfer and Movement of Water in Arizona*

amwua
ONE FOR WATER

The Transfer and Movement of Water in Arizona
February 7, 2018

I. Executive Summary

The movement and transfer of water has been a tenet of Arizona's water management. Many urban areas of Arizona would not exist in their current state without it. Examples include water transported through the Salt River Project and the Central Arizona Project. A key question for Arizona's water future is what role "water transfers" and the movement of water will continue to play. In light of continuing drought in Arizona and across the southwest, water transfers will be of increased interest to policymakers and legislators.

Barriers, Advantages, and Disadvantages: Arizona law permits several types of arrangements to move or transfer water. However, the legal barriers and transaction costs to implementing transfers can be significant. Advantages of transfers include their voluntary nature, flexibility in promoting new uses of water, potential to incentivize efficient uses of water, and utilization of market forces. Disadvantages include negative impacts on other rights holders, complex institutional barriers, and impacts on local economies. In some cases, water transfers can present challenges for local economies. As appropriate, entities looking at transferring water may want to consider addressing impacts on such communities. Furthermore, while water transfers are often framed as a means of increasing urban water supplies, rural areas also utilize water transfers.

Categories: This paper provides policy and legal context about three broad categories of transfers: (1) Colorado River mainstem transfers, (2) Groundwater transportation, and (3) Sever and transfers of in-state surface water.

(1) Colorado River Mainstem Transfers: To date, large-scale transfers of mainstem Colorado River water into central Arizona have been rare due to legal, policy, and institutional barriers. When such transfers have occurred, they have been part of congressionally approved tribal settlements. Transferring a mainstem Colorado River water right is subject to the dual oversight of the Arizona Department of Water Resources (ADWR) at the state level, and the Bureau of Reclamation at the federal level. Although the Secretary of Interior and Bureau of Reclamation ultimately oversee the allocation of Colorado River water, they have historically given significant deference to the recommendations of the ADWR Director in determining intrastate allocations. A transfer of Colorado River water involving the Central Arizona Project canal will also require a wheeling agreement pursuant to the CAP System Use Agreement and contribution of funds towards system improvement projects that increase the operational capacity of the CAP canal.

In recent years, water users have discussed several potential transfers of Colorado River water, although these discussions have not yet led to actual transfers. Some of the primary parties to these discussions include CAWCD, on-River landholders, Metropolitan Water District of Southern California, Salt River Project, and the Colorado River Indian Tribes. Intentionally Created Surplus, or ICS, is a creation of the 2007 Interim Guidelines that allows a Colorado River Contractor to leave conserved water that meets certain criteria in Lake Mead for later delivery.

While the primary purpose of ICS is to increase supplies in the Colorado River system, it has the effect of facilitating water marketing.

(2) Groundwater Transportation: Another type of transfer is the transportation of groundwater from one location to another. The Groundwater Transportation Act of 1991 limits or prohibits most transfers of groundwater. The primary purpose behind the groundwater transportation restrictions was to protect distinct groundwater basins and rural economies by ensuring that local groundwater primarily goes to local uses. The rule with respect to transporting groundwater from outside an AMA into one of the initial AMAs is that it generally cannot be done unless an enumerated exception in statute applies, such as the identification of sub-basins where the transportation of groundwater to an AMA is permitted.

(3) Sever and Transfers of In-state Surface Water: A sever and transfer is defined as a severing of an in-state surface water right from land for use elsewhere. To effectuate a sever and transfer, it must be approved by the ADWR Director, not injure another right holder, be a valid water right, and in some cases either approval or lack of denial by affected irrigation districts or other entities. Generally, the quantity of water that can be transferred is limited to the amount historically consumed. Although the framework exists for sever and transfers to occur, in certain cases they can be challenging to implement. Sever and transfers are further complicated by the fact that the relative priority and extent of Arizona's in-state surface water rights are uncertain as a result of the General Stream Adjudication. These factors significantly increase the complexity of transferring in-state surface water rights.

What Water Transfers Mean for Arizona: Past discussions regarding transfers in Arizona have largely fallen along a "rural vs. urban" divide. This is understandable because water supplies are a necessary ingredient to sustained economic activity in agricultural, industrial, and service-based economies. Transfers of water will be more likely to proceed if the parties seeking to transfer the water work with local communities and stakeholders. While transfers are possible under existing law, the state's current laws in many cases act as barriers to many water transfers. If appropriate reforms and practices are put in place that encourage water transfers while protecting existing right holders and affected communities, water transfers have the potential to incentivize conservation, facilitate flexible water arrangements, and aid the state in addressing future water demands. This would ensure that Arizona's water policy continues to promote statewide economic prosperity and quality of life.

II. Introduction

The transfer and movement of water has been a tenet of Arizona's water management. Many urban areas of Arizona simply would not exist in their current state without it. Examples include water from the Salt and Verde rivers through the Salt River Project (SRP) and Colorado River water through the Central Arizona Project (CAP). These and other water innovations provide the water certainty that fuels much of Arizona's economic prosperity.

In building that security, Arizona's water managers are constantly thinking about what the next water supply "bucket" will be. There are no easy answers. One issue for discussion is what role "water transfers" and the movement of water will continue to play in Arizona's future. There

is no single definition of what constitutes a water transfer. For purposes of this paper, a water transfer is a "temporary or permanent change in the type, time, or place of use of water …or a water right."[1] The strategic movement of water is not new in Arizona. Over a twenty-year timeframe, by one count the state had over 200 water transfers totaling over 8 million acre feet.[2]

In January 2014, the Arizona Department of Water Resources (ADWR) developed a document entitled *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability*. The purpose of that document was to identify strategies to meet Arizona's projected statewide water needs.[3] That report discussed water transfers as one possible means to address future supply needs over the next 20 to 100 years, including the needs of rural areas of the state.[4] The report noted that while transfers are possible under existing law, current law creates high transaction costs limiting the usefulness of transfers.[5] Furthermore, history has shown that water transfers can be very controversial.[6]

The time has come to have a statewide conversation about the role of water transfers in addressing water supply needs in both urban and rural areas of Arizona. This issue has recently come to the forefront as the result of a controversial proposed CAGRD water transfer involving the acquisition of 2,200 acres of farmland with Colorado River rights in Mohave County.[7] The rhetoric around the issue is heated. In a letter to the CAWCD Board, the chair of the Mohave County Board of Supervisors wrote that the transfer is "part of a continual attack on the water rights and economy of rural Arizona."[8] As a result of this and other recent events, the water transfer issue will likely be an issue of interest to legislators.

The purpose of this paper is to provide policy and legal context about the movement and transfer of water in Arizona, and outline a few examples. It is important to acknowledge that there are numerous water transactions that are relevant to this topic, including the use of long-term storage credits, the urbanization of agricultural land, and exchanges of water. This paper will only focus on three broad categories: (1) Colorado River mainstem transfers, (2) Groundwater transportation transfers, and (3) Sever and transfers of in-state surface water.

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[1] Western Governors' Association & Western States Water Council, *Water Transfers in the West* vii (2012) [hereinafter Western Governors' Association].
[2] *Id.* at 14.
[3] ADWR, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability* 9-10 (2014).
[4] *Id.* at 51.
[5] *Id.* at 57-58.
[6] *Id.*
[7] CAWCD Board Meeting Brief, *Discussion and Consideration of Action to Approve on Behalf of CAGRD a Purchase and Sale Agreement to Acquire Water Rights and Land in Mohave Valley Irrigation and Drainage District* 2 (October 5, 2017). CAWCD staff conservatively estimates that approximately 5,500 AF of the total diversion right would be transferable based on quantification estimates and assuming 50 percent of the land is fallowed in any given year.
[8] D.K. McDonald, *Central Arizona Project Seeks Transfer of Mohave Valley Water Rights,* Mohave Valley Dailey News (October 23, 2017).

III. Background

Arizona law permits several types of arrangements to move or transfer water.[9] However, the legal barriers and transaction costs to implementing transfers can be significant. As ADWR pointed out in the 2014 Strategic Vision, current laws and policies related to transfers are designed to protect local interests and water right holders, and these protections make transfers hard to do.[10] As one group of distinguished water policy experts noted, "several aspects of Arizona law discourage market transactions in water."[11] The specific barriers for any given transaction largely depend on the type of transfer and the impacts it will have on other right holders.

There are inherent advantages and disadvantages to water transfers and the movement of water. What follows is an outline of some of these considerations.[12]

Advantages

Voluntary: Water transfers are usually voluntary transactions between willing buyers and sellers, and thus utilize market forces. Issues that arise between the principal parties can be resolved through negotiation.

Flexible Uses of Water: Water transfers can facilitate flexible uses of water to meet current and future needs.

Incentivize Conservation: Water transfers can incentivize conservation of water. In some cases, it may make economic sense for a farmer to invest in increased water efficiency or plant water efficient crops if the saved water can be marketed or leased. Unfortunately, transfers of conserved in-state surface water would be very difficult to do in Arizona as a result of current laws that give certain downstream right holders the ability to veto water transfers.[13]

Market-based Transactions: Water transfers can utilize market forces to allocate water supplies. This can lead to economically efficient allocations of water. While utilizing market forces may lead to economically efficient allocations, it may also have negative impacts on certain industries and smaller communities that may not have the resources to compete for limited water supplies.

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[9] ADWR, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability* 58 (2014).
[10] *Id.* at 57.
[11] Susanna Eden et al., *Agricultural Water to Municipal Use: The Legal and Institutional Context for Voluntary Transactions in Arizona* 20, The Water Report (Dec. 15, 2008).
[12] Western Governors' Association & Western States Water Council, *Water Transfers in the West* ix-x (2012). The listed advantages and disadvantages are derived from a report issued by the Western Governors' Association in 2012 that was based on extensive stakeholder feedback from state water administrators, NGOs, farmers, academics, and water resource professionals.
[13] *See* A.R.S. § 45-172(A); M. Byron Lewis, Arizona State University Morrison Institute for Public Policy, *New Era of Arizona Water Challenges* 5 (May 2014). As an example, state statute essentially gives any downstream irrigation district the authority to veto a sever or transfer within the same watershed or drainage area. A.R.S. § 45-172(A)(5). This provision significantly increases the transaction costs of any sever and transfer, and may practically make such transfers unfeasible. Susanna Eden et al., *Agricultural Water to Municipal Use: The Legal and Institutional Context for Voluntary Transactions in Arizona* 20, The Water Report (Dec. 15, 2008).

Disadvantages

Impacts on Other Right Holders and River Flows: Transferring surface water can impact other water right holders and in-stream environmental flows. A prime example is a farmer that diverts water that is not 100 percent consumed by crops, infiltration, or evaporation, and thus flows back to the river. This return flow is water that benefits downstream users and flows in the river. If this water is transferred to another diversion point that decreases return flow to the river, it will have impacts to other right holders and the river system. Under Arizona law, a transfer of in-state waters must not harm or interfere with another party's water right.[14] Consumptive use and return flows can be quantified to determine how much can be transferred while protecting downstream users, but this can be a difficult process.

Complex Institutional Considerations: Many water rights are not held by individual parties, but by institutions such as irrigation districts. For example, if an in-state surface water right is tied to lands within an irrigation district, the decision to transfer a water right must be approved by the irrigation district board.[15] In some cases, irrigation districts have authority to veto any upstream transfer within the same watershed even if the water right is tied to lands outside of the district.[16] These types of barriers complicate water transfers.

Impact on Local Economies: Transfers often involve the movement of water from rural to urban locations. In some cases, transfers can impact rural economies and diminish their prospects for future growth.

In 2012, the Western Governors' Association noted that "[p]erhaps the greatest challenge for water transfers involves the key role water plays in rural economies."[17] This is because many rural areas rely on irrigated agriculture, and less water can mean fewer crops and cash flow into the local economy.[18] This not only impacts local economic activity, but also the tax base for local governments. For example, one of the primary concerns expressed by Mohave County with CAWCD's proposed transfer is that the 2,200 acres CAWCD would acquire would not be subject to property taxes.[19] CAWCD staff has stated that it is willing to work with the County to discuss ways to minimize impacts of CAWCD land ownership.[20] Regardless, the issue of decreasing the tax base is a concern for rural communities.

Transfers that provide some benefits not only for the transacting parties, but also impacted communities may facilitate implementation. For example, some agricultural districts have water tables that are too high and must pump drainage water from the ground in order to grow crops. It

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[14] A.R.S. § 45-172(A)(2).
[15] A.R.S. § 45-172(A)(4).
[16] A.R.S. § 45-172(A)(5).
[17] Western Governors' Association & Western States Water Council, *Water Transfers in the West* 13 (2012).
[18] *Id.* at 23.
[19] *Public Comment of Supervisor Gary Watson*, CAWCD Board Meeting, Omni Tucson National Resort, Tucson, Arizona (October 5, 2017).
[20] CAWCD Board Meeting Brief, *Discussion and Consideration of Action to Approve on Behalf of CAGRD a Purchase and Sale Agreement to Acquire Water Rights and Land in Mohave Valley Irrigation and Drainage District* 2-3 (October 5, 2017).

is not difficult to imagine scenarios where some of this drainage water could be used for transfers or exchanges of water.

In other states, some entities desiring to transfer water have funded formal mitigation efforts for local communities. In California, the Metropolitan Water District of Southern California (MWD) and Palo Verde Irrigation District have a compensated fallowing program in place that transfers between 30,000 to 120,000 acre-feet of water annually over a 35-year period. In addition to payments made to farmers, MWD established a $6 million mitigation fund that pays for workforce training programs and small business development.[21] The program has been called a "model of how cities and farming areas can work together to stretch water supplies further while keeping agriculture alive."[22] However, tensions between the two entities remain as Palo Verde Irrigation District recently sued MWD over its purchase of thousands of acres within the irrigation district.[23] Regardless, mitigation may be a cost of business worth bearing to implement some proposed transfers.

The issue of water transfers in Arizona came to a head as a result of legislation introduced in 2013 by then House Speaker Andy Tobin. House Bill 2338 would have enabled public and private entities in urban and rural areas to voluntarily form regional water augmentation authorities for the purpose of financing water projects as well as acquiring water supplies.[24] Despite support for the concept from the Water Resources Development Commission organized by Governor Jan Brewer, the bill's language proved controversial. Several Yuma area water users, the Cattlemen's Association, and other entities representing rural interests opposed the bill, viewing it as a water grab. As one prominent rural representative commented, "this bill has started a war" and the bill posed a threat "to agriculture in the Yuma area."[25] Despite a personal plea from the Speaker to move the bill out of committee, the bill was held after a heated 2 ½ hour hearing.

While water transfers are often framed as a means of increasing urban water supplies, they benefit rural areas as well. One recent example is a water transfer between Salt River Project and the Town of Payson. This arrangement will allow the Town to access a renewable water supply from the watershed as soon as this year, allowing the Town to augment its supplies and protect its groundwater. The Town will transport an average of 3,000 acre-feet per year of surface water from Salt River Project's C.C. Cragin Reservoir located north of the town.[26]

IV. Colorado River Mainstem Transfers

A. History

Apart from CAWCD's movement of Project Water through the Central Arizona Project for cities, agriculture, industry, and others, large-scale transfers of mainstem Colorado River water

[21] Western Governors' Association, *Water Transfers in the West* 53 (2012).
[22] Ian James, *A New Fight Over Water in the California Desert, with Echoes of 'Chinatown',* Desert Sun (Sept. 28, 2017).
[23] *Id.*
[24] H.B. 2338, 51st Leg, 1st Reg. Sess. (Ariz. 2013).
[25] *Public Comment of Wade Noble*, Arizona Legislature, House Agriculture and Water Committee (Feb. 19, 2013).
[26] *See* ADWR, In the Matter of the Application to Partially Sever and Transfer a Certain Water Right Evidenced by Revised Certificate of Water Right No. 3696.0001, No. ST-10-001 (March 15, 2010).

into central Arizona have been rare. This is due to the many legal, policy, and institutional barriers to such transactions. When transfers have occurred, they have been part of congressionally approved tribal settlements. One such transfer occurred in the late 1980s when the United States acquired 22,000 acre-feet from the Wellton-Mohawk Irrigation and Drainage District to settle water claims of the Salt River Pima-Maricopa Indian Community.[27] Although the irrigation district eventually approved the transaction in exchange for federal concessions, the deal was very controversial among local farmers and some resentment exists to this day.[28]

Another transfer occurred as part of the 1984 congressional revisions to the Ak-Chin water settlement. Congress allocated 50,000 acre feet of unused water from the Yuma Mesa Division of the Gila Project.[29] The state of Arizona unsuccessfully opposed the transfer, taking the position that the water should be allocated to CAWCD.[30] In 2004, the state opposed another transfer of Colorado River. The Bureau of Reclamation and the Yuma Mesa Irrigation District reached an agreement regarding the purchase of water, although Reclamation backed out of the deal as a result of a lawsuit threat from the state.[31]

Other water users have shown interest in transferring Colorado River water. Although to date the Central Arizona Groundwater Replenishment District (CAGRD) has not yet acquired Non-project Colorado River water to wheel through the Central Arizona Project, the Arizona water community has known for years that this is a possibility.[32]

B. Process for Transferring a Colorado River Contract Entitlement

Transferring a mainstem Colorado River contract right is subject to the dual oversight of ADWR at the state level, and the Bureau of Reclamation at the federal level.[33] Each agency has its own process in analyzing and recommending or approving a transfer. As a result of this duel bureaucracy, buyers and sellers should not be surprised by delays or extensive consulting and legal costs.[34]

Although the Secretary of Interior and Bureau of Reclamation ultimately oversee the allocation of Colorado River water, Reclamation tends to give some measure of deference to the recommendations of the ADWR Director in determining intrastate allocations.[35]

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[27] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 238 (2007).
[28] *Id.* at 238-240.
[29] *Maricopa-Stanfield Irrigation & Drainage District v. U.S.,* FN 7 (Oct. 14, 1998).
[30] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 242 (2007).
[31] *Id.*
[32] CAGRD, *Plan of Operation* 46-47 (2004); CAGRD, *Plan of Operation* 4-11, 12 (2015).
[33] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 245 (2007).
[34] *Id.*
[35] *Id. See* A.R.S. § 45-107.

The first step is submitting an application to ADWR requesting the Director recommend that the Bureau of Reclamation approve the transfer.[36] ADWR requires extensive documentation in an application, including quantification of the existing diversion and consumptive use of water, as well as documenting the proposed use and management of the water after the transfer.[37] In considering the proposed transfer, the ADWR Director will consider the impacts on other right holders, water quality repercussions, return flow impacts, and the United States' treaty obligations to Mexico.[38] ADWR will facilitate an extensive public notice and comment process before the Director makes a recommendation.[39] Based on the timelines in ADWR's formal policy, any transfer decision from the Director will take several months at a minimum, and perhaps much longer.

In addition to ADWR's review, any transfer must be approved by the Bureau of Reclamation. The end goal of the transfer process is Reclamation's issuance of what is known as a new "Section 5" contract.[40] A Section 5 contract is a contract with the Secretary of Interior for the use of Colorado River water pursuant to Section 5 of the Boulder Canyon Project Act. Upon submission of a transfer application with supporting documentation, Reclamation will list the proposed transfer in the federal registrar and enter into a contract with the parties to cover Reclamation's administrative costs.[41] Reclamation will review the proposed transfer to ensure it complies with federal law, including Reclamation law and the National Environmental Policy Act (NEPA). With respect to transfers completed to date on the Colorado River, the NEPA process has generally involved the less intense Categorical Exclusion process, but in some cases can involve an Environmental Assessment or a more expensive Environmental Impact Statement.[42] Reclamation also considers any impacts of the transfer on third parties, including the tribes for which the United States government has trust obligations. Reclamation's process also consists of a public notice and comment period wherein stakeholders can weigh in on the proposed transfer and new entitlement contract.[43] If Reclamation approves the transfer, it issues a new Colorado River contract to the transferee.[44] To date, most transfers of Colorado River water that require the issuance of a new contract have been for relatively modest amounts of water and take a few months to process.[45]

One particular challenge in transferring mainstem Colorado River water is quantification of the amount of the entitlement that can be transferred.[46] This issue is a challenge because many times water that is diverted on the Colorado River is not all consumptively used, creating return

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[36] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 246 (2007).
[37] *Id.* at 5-6.
[38] *Id.* at 2, 4, 6.
[39] *Id.* at 7.
[40] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 246 (2007).
[41] Phone Conversation with Reclamation Staff, Boulder Canyon Office (Nov. 2017).
[42] *Id.*
[43] *Id.*
[44] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 246 (2007).
[45] Phone Conversation with Reclamation Staff, Boulder Canyon Office (Nov. 2017).
[46] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 245 (2007).

flows to the River that other users rely upon.[47] Gathering the necessary data to quantify historical consumptive use and return flows can be expensive and time consuming.[48]

There are two basic types of Colorado River entitlements: (1) Consumptive use, and (2) Diversion entitlements. A consumptive use entitlement limits the amount of water that the right holder can consume or actually use.[49] ADWR's policy for this type of entitlement is to limit any transfer to the maximum amount of the entitlement.[50] Diversion entitlements limit the amount of water that can actually be diverted from the River, with the understanding that often there are return flows from the use of that water.[51] Diversion entitlement transfers are slightly more complicated. If the transfer will result in the same amount of return flow, the full entitlement may be transferred.[52] However, if the new use results in decreased return flows, the transferable amount is limited to the actual consumptive use.[53] For example, a farmer with a diversion right of 5,000 acre feet with 1,500 acre feet of historical return flows would only be able to transfer 3,500 acre feet.

A transfer of Colorado River water involving the Central Arizona Project canal will also require a wheeling agreement pursuant to the CAP System Use Agreement. Obtaining a wheeling contract will require the transferee to contribute funds towards system improvement projects that increase the operational capability of the canal to carry wheeled water.[54] This is true regardless of whether the system improvements are needed to physically wheel additional non-Project Water. In addition, the transferee will be required to pay certain CAP annual costs, such as an equivalent fixed OM&R rate, pumping energy rate, and a capital charge equivalent.[55] Furthermore, any introduction of wheeled water must be approved by Reclamation and undergo environmental review under the NEPA process.[56]

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[47] ADWR, Substantive Policy Statement CR8, *Policy and Procedure for Transferring an Entitlement of Colorado River Water* 4-5 (Jan. 17, 2014).
[48] Western Governors' Association, *Water Transfers in the West*, 35, 57 (2012).
[49] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 245 (2007); ADWR, Substantive Policy Statement CR8, *Policy and Procedure for Transferring an Entitlement of Colorado River Water* 4 (Jan. 17, 2014).
[50] ADWR, Substantive Policy Statement CR8, *Policy and Procedure for Transferring an Entitlement of Colorado River Water* 4 (Jan. 17, 2014).
[51] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 245 (2007).
[52] ADWR, Substantive Policy Statement CR8, *Policy and Procedure for Transferring an Entitlement of Colorado River Water* 4 (Jan. 17, 2014).
[53] *Id.* at 4-5.
[54] CAWCD Staff Presentation to Board, *Draft System Use Agreement* (December 1, 2017). References to System Improvement Fees were removed in later drafts of the System Use Agreement, and issues related to funding of system improvement projects will be discussed in a future stakeholder process. *Id.* However, it is clear that System Improvement Projects will be funded by wheeling parties. *Id.*
[55] § 14 Standard Form of CAWCD Wheeling Contract, Exhibit B, CAP System Use Agreement Between the U.S. and the CAWCD, Contract No. 17-XX-30-W0622 (February 2, 2017).
[56] Amended Master Repayment Contract § 8.18, Contract No. 14-o6-w-245 (November 28, 1988); CAP System Use Agreement Between the U.S. and the CAWCD § 6, Contract No. 17-XX-30-W0622 (February 2, 2017).

C. Recent Proposed Colorado River Transfers

In recent years, water users have actively discussed several potential transfers of Colorado River water. Transfers of Colorado River water are of interest to the AMWUA cities because of the potential implications, which depending on the specific transfer could support or detract from the water supply objectives of the AMWUA cities. For example, transfers that increase utilization of on-River supplies—whether involving the CAP canal or not—*could* in the long-term have a statistical impact on the reliability of Project Water available to CAWCD for delivery to cities, tribes, farmers, and others. This is because CAP Project Water is generally reduced before most Arizona on-River supplies during shortages, making it less reliable as On-river right holders use more of their allocations. On the other hand, transfers have the potential to increase the amount of renewable water supplies to support Arizona's economic development in both rural and urban areas.

What follows are summaries of some notable examples of transfers that stakeholders have recently discussed. To date, none of the examples have been implemented.

Quartzite & CAWCD

In June 2017, the CAWCD board signed a lease agreement with the Town of Quartzite for the town's Colorado River water entitlement of 1,070 acre feet. The purpose of the lease is to provide water for the benefit of CAGRD.[57] As the town is located 20 some miles away from the River, the town does not have the financial ability to directly use its Colorado River water. As a result, this water has historically gone to the CAP excess pool.[58]

The term of the lease is for two successive 25-year terms, with either party having the right to not renew the second term. The agreement also gives CAWCD a first right of refusal on any lease or sale of the entitlement for five years after the lease expires. CAWCD will pay the town $1,700 per acre foot to lease the water for the first 25 years, and $2,470 per acre foot if the second 25-year lease period is enacted.[59]

Although the CAWCD Board approved this transaction unanimously, the lease is not without controversy. At the June 2017 board meeting, an attorney for the Mohave County Water Authority spoke against the proposed lease. She argued that this arrangement essentially is a permanent water transfer because of the right of first refusal. She also argued that when Colorado River water was set aside for the Central Arizona Project, it was agreed that 10 percent of the amount set aside for CAWCD would remain available to on-River users.[60] She argued that this

[57] CAWCD Board Meeting Brief, *Discussion and Consideration of Action to Approve on Behalf of CAGRD a Water Right Lease Agreement between the Town of Quartzsite and Central Arizona Water Conservation District* 2 (June 8, 2017).
[58] *Id.*
[59] *Id.* at 3.
[60] *Public Comment of Maureen George*, CAWCD Board Meeting, Phoenix, Arizona (Jun. 8, 2017). Specifically, the representative for the Mohave County Water Authority was making this argument with respect to the 164,652 AF of water contracted subsequent to September 30, 1968 that shares a co-equal priority with CAP Project Water pursuant to section 8.7(c) of the 1988 Amended CAWCD Master Repayment Contract.

arrangement disrupts that balance. In November 2017, ADWR held three meetings throughout the state to receive public comment on the proposed transfer.

CAWCD & Mohave Valley Irrigation District

In October 2017, the CAWCD board entered into a contract to purchase farmland in the Mohave Valley Irrigation and Drainage District with the plan of transferring water for the benefit of CAGRD.[61] The land includes 2,203 acres with 13,429 acre-feet of priority four water rights and 2,500 acre-feet of present perfected rights at a purchase price of $34 million.[62] CAWCD staff has proposed a rotational fallowing program to implement the transfer, and estimates that it could transfer 5,508 acre-feet each year as a result.[63]

The contract includes several closing contingencies that must be met for the deal to go through, including a requirement that the Mohave Valley Irrigation and Drainage District approve the assignment or issuance of a Colorado River water contract to CAWCD.[64] This contingency is key because the contract rights CAWCD is seeking to acquire are held by the irrigation district, not the landowner.

The proposed deal has engendered a great deal of controversy. Interests that are generally supportive of CAGRD such as the development and the homebuilding industries have largely spoken in favor of the proposal. Mohave County and other rural interests have either spoken against or expressed concerns with the proposal. Like the Quartzite transfer, representatives from Mohave County have argued that when Colorado River water was set-aside for the Central Arizona Project, the parties agreed that 10 percent of the amount set aside would remain available to on-River users.[65] Another issue of concern for Mohave County is the potential for lost tax revenues as CAWCD is not required to pay property taxes, an issue CAWCD staff is open to discussing.[66] Regardless, as a lobbyist for Mohave County has publically stated, the primary concern of the County's elected officials is not lost tax revenue, but the impact of the transfer on the region's economic future.[67]

CAWCD & Metropolitan Water District of Southern California

In 2015 CAWCD discussed a water transfer concept that involved Colorado River water with Metropolitan Water District of Southern California (MWD). Under the pilot proposal, in 2015 CAWCD would have stored 60,000 acre-feet of water with MWD. At some point in the future

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[61] CAWCD Board Meeting Brief, *Discussion and Consideration of Action to Approve on Behalf of CAGRD a Purchase and Sale Agreement to Acquire Water Rights and Land in Mohave Valley Irrigation and Drainage District* 2-3 (October 5, 2017).
[62] *Id.*
[63] *Id.*
[64] *Id.*
[65] *Public Comment of Maureen George*, CAWCD Board Meeting, Omni Tucson National Resort, Tucson, Arizona (October 5, 2017).
[66] *Public Comment of Supervisor Gary Watson*, CAWCD Board Meeting, Omni Tucson National Resort, Tucson, Arizona (October 5, 2017); CAWCD Board Meeting Brief, *Discussion and Consideration of Action to Approve on Behalf of CAGRD a Purchase and Sale Agreement to Acquire Water Rights and Land in Mohave Valley Irrigation and Drainage District* 2-3 (October 5, 2017).
[67] *Public Comment of Patrick Cunningham*, CAWCD Board Meeting, Phoenix, Arizona (Dec. 7, 2017).

when Lake Mead falls below 1,050 feet, MWD would provide a roughly equivalent amount of water back to CAWCD during the shortage, and MWD would reduce its Colorado River diversion.[68] This type of arrangement is authorized under federal law and is called a Storage and Interstate Release Agreement, or SIRA. A SIRA is essentially an agreement "between the Secretary and authorized entities in two or more Lower Division States" that addresses "[o]ffstream storage of Colorado River water by a storing entity for future use within the Storing State."[69]

Under the proposal, MWD would have paid CAWCD $17.7 million to compensate ratepayers for increased OM&R costs, fund recovery facilities, provide funding to AWBA, and other purposes. The thinking at the time was that the proposal would provide water to California during its drought in 2015, and allow CAWCD to have more water during a tier two shortage than would otherwise be available. Due to concerns raised by ADWR, CAWCD did not proceed with the proposal.

Salt River Project & the Colorado River Indian Tribes

In the fall of 2017, the Arizona news media reported that in 2015 and 2016 Salt River Project (SRP) held closed-door discussions with the Colorado River Indian Tribes (CRIT), Governor's Office, CAWCD, and federal officials about the concept of leasing 150,000 acre-feet of the CRIT's water across the state. SRP envisioned this water going to a new power generation facility, Prescott, Sierra Vista, West Valley cities, and Superstition Vistas. The CRIT holds a present perfected right to divert about 662,000 acre feet of water each year. After return flows and other losses, the CRIT's consumptive use has historically been in the range of 350,000 acre feet per year. Although the parties discussed concepts that involved MWD and the GRIC, it is unclear if representatives from either entity were involved in these discussions.

Although the concept went through several iterations, SRP staff held the view that in order for the concept to work for the CRIT, MWD's financial resources would be needed. An early version of the concept thus envisioned an interstate component whereby some of Arizona's apportioned Colorado River water would be forborne by CAWCD and go to MWD in California. The proposed transaction was very complex and involved a number of parties. While the full concept cannot be laid out here, what follows is an outline of some key elements.

- *Lease of CRIT's Water:* SRP would pay for canal, irrigation and other farming efficiency improvements for the CRIT's agricultural operations. As a result, the CRIT would use its water more efficiently, reducing its consumptive use by up to 150,000 acre feet of water and thereby freeing up that water to lease and deliver through the CAP. Moving the water off reservation would require congressional action.

[68] The water that CAWCD would receive from Metro during a tier two shortage in this transaction would be called Intentionally Created Unused Apportionment, or ICUA, pursuant to federal regulations. 43 § C.F.R. 414.2. This is essentially water that is developed by the storing entity—in this case, California—that is unused Colorado River apportionment. *Id.* The water must be developed in a manner consistent with the laws of the storing state and developed solely in the implementation of a Storage and Interstate Release Agreement. *Id.*
[69] 43 C.F.R. § 414.2.

- *AWBA Credit Transfer & CRIT Firming Arrangement:* The Arizona Water Banking Authority would transfer 1 million acre-feet of LTSCs to the CRIT. In exchange, the CRIT would reduce its water use during shortage years and provide 40,000 acre-feet of CAP M&I firming each shortage year until 1 million acre-feet has been firmed.

- *MWD Payment & MWD's Diversion of CRIT's Colorado River Water:* MWD would make a significant upfront payment to the CRIT, and the CRIT along with CAWCD would forbear diversion of 50,000 acre-feet of water every year (shortage or no shortage) for 20 years. This water would instead go to MWD. The CRIT would transfer 50,000 LTSCs each year to CAWCD, and CAWCD would recover and use the credits to replace the 50,000 acre-feet going to MWD.

- *GRIC Involvement:* One version of the concept envisioned participation by the GRIC. The GRIC would assign 1 million LTSCs to CAWCD, and CAWCD would recover some of these credits each year to replace water CAWCD would forbear for the benefit of MWD. MWD would pay the GRIC for the use of these credits.

In August 2016, the Governor's Office informed SRP that the state did not support the interstate aspect of the concept due to concerns about the perception of selling Arizona's water to California. CAWCD shared these concerns. The media has reported that SRP has since stated that it does not think the interstate transfer concept will go anywhere. In October 2017, an SRP board committee discussed the status of the talks with the CRIT in executive session.

Although the interstate aspect of the proposal will not likely proceed, the prospect of leasing CRIT's water off-reservation within Arizona presents opportunities and challenges for the AMWUA cities. For example, the possibility of wheeling a significant water supply in the CAP that has a higher priority than existing Project Water raises questions that would need further examination and discussion.

Intentionally Created Surplus and Water Transfers

Intentionally Created Surplus, or ICS, is a creation of the 2007 Interim Guidelines that allows a Colorado River contractor to leave conserved water that meets certain criteria in Lake Mead for later delivery. ICS thus allows a contractor to reduce usage at one location for delivery at another location. ICS is a type of transfer because it allows for the movement of water that would have been used at one location for use at another location, potentially for another end use. In this way, ICS shares similarities with Arizona's system of accumulating long-term storage credits for water stored in the aquifer that can be used outside the location of storage, but within the same Active Management Area.

It is important to note that while the primary purpose of ICS is to increase supplies in the Colorado River system, it has the effect of facilitating water marketing and transfers.[70] For example, one of the primary methods of creating Extraordinary Conservation ICS is through

[70] Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 Ariz. L. Rev. 235, 252 (2007).

fallowing.[71] This conserved water, stored as ICS in Lake Mead, could be available for a number of uses beyond agriculture. To date, CAWCD is the only Arizona contractor that has created ICS. How CAWCD will use its ICS is an issue for future consideration.

V. Groundwater Transportation

Another type of transfer is the transportation of groundwater from one location to another. In the aftermath of the 1980 Groundwater Management Act, in the mid-1980s the cities of Phoenix and Mesa purchased farms outside of the Phoenix AMA to use as a water supply to meet the Act's requirements.[72] For a variety of reasons, neither city ever actually transported groundwater from the farms, and both have either sold or are currently under contract to sell the farms.[73] Other land speculators also bought farms during this time period with the expectation of transporting groundwater.[74]

The purchase of these "water farms" in the 1980s created a backlash in parts of rural Arizona that feared the mining and export of local groundwater.[75] As a result of this backlash and after several years of discussion, the Arizona legislature passed the Groundwater Transportation Act in 1991.[76] As a result, many transfers of groundwater are limited or prohibited.[77] The primary purpose behind the groundwater transportation restrictions was to protect distinct groundwater basins and rural economies by ensuring that local groundwater primarily goes to local uses.[78]

The statutes that govern the transportation of groundwater are complex and scenario-specific. However, the general rule with respect to transporting groundwater from outside an AMA into one of the initial AMAs is clear—unless a limited exception in statute applies, it cannot be done.[79] The authorized exceptions cover five distinct areas of the state, with different conditions applying to each area.[80] Some of these restrictions make transfers challenging to execute, and thus limit their utility for augmenting supplies.[81] As one prominent Arizona water lawyer has noted, unlike surface water rights, the Legislature has significant latitude to modify uses of groundwater.[82]

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[71] Bureau of Reclamation, *Colorado River Interim Guidelines for the Operation of Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead*, 73 Fed. Reg. 19873, 19886 (Apr. 11, 2008).
[72] Paul Bergelin, *Moderating Power: Municipal Interbasin Groundwater Transfers in Arizona* 17, 62-73, Arizona State University Master's Thesis (Oct. 2013).
[73] *Id.* at 149.
[74] *Id.* at 87-90.
[75] *Id.* at 91-92, 102-03.
[76] *Id.* at 93.
[77] M. Byron Lewis, Arizona State University Morrison Institute for Public Policy, *New Era of Arizona Water Challenges* 19 (May 2014).
[78] ADWR, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability* 58 (2014).
[79] A.R.S. § 45-551. Arizona's statutes contain extensive provisions and restrictions involving the transportation of groundwater outside of Active Management Areas. *See* A.R.S. § 45-544.
[80] These five areas are the Yuma Basin (A.R.S. § 45-547); McMullen Valley Basin (A.R.S. § 45-552); Butler Valley Basin (A.R.S. § 45-553), Harquahala INA (A.R.S. § 45-554), and the Big Chino Sub-basin (A.R.S. § 45-555).
[81] ADWR, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability* 57 (2014).
[82] M. Byron Lewis, Arizona State University Morrison Institute for Public Policy, *New Era of Arizona Water Challenges* 19 (May 2014).

One example of a groundwater transportation transfer involves the City of Scottsdale. The City acquired approximately 1,200 acres in the Harquahala Valley. The City's purpose in acquiring this farmland was to provide water to meet the CAGRD requirements of a Water Availability Status member, however Scottsdale does not rely on CAGRD for its 100-year Assured Water Supply needs.[83] The relevant groundwater rights will allow the City to wheel approximately 3,600 acre feet per year through the Central Arizona Project.[84] The City is currently working on the design and construction of the necessary infrastructure, environmental NEPA compliance, and satisfying other requirements pursuant to the CAP System Use Agreement.[85] The City will also enter into a Wheeling Agreement and is continuing to work with CAWCD staff, Bureau of Reclamation, and other stakeholders in an attempt to address water quality issues relating to the introduction of non-Colorado River water into the Central Arizona Project.

VI. Severance & Transfers

A third type of water transfer is called a "sever and transfer." A sever and transfer is defined as a severing of an in-state surface water right from land for use elsewhere.[86] These types of transfers can occur subject to the limitations and conditions in statute.[87] Among other things, the law states:

- No sever and transfer is effective unless approved by the ADWR Director.[88]
- Existing surface water rights must not be "affected, infringed upon nor interfered with." This is sometimes referred to as the "no injury rule."[89]
- The water rights must be valid, and not forfeited or abandoned.[90]
- If required, consent and approval for the transfer may be needed from affected irrigation districts or other entities.[91]
- The ADWR Director must publish notice of the application stating that any interested person can file objections to the proposed transfer. The Arizona Supreme Court has defined an interested person as essentially an affected party that has an interest protected by the relevant statute. The Director may hold a public hearing and consider objections.[92]

Although the Director has significant discretion in considering sever and transfer applications, the Director can only deny an application for the reasons identified in statute, which include the reasons listed above.[93] Generally, the quantity of water that can be transferred is limited to the

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[83] Scottsdale City Council Report, Agenda Item 27A (July 1, 2015).
[84] Chris Hassert, Scottsdale Water Planning & Engineering Director, Presentation to CAWCD Water Quality Task Force, *Harquahala Valley Groundwater Wheeling* (June 6, 2017).
[85] *Id.*
[86] A.R.S. § 45-172.
[87] A.R.S. § 45-172(A).
[88] A.R.S. § 45-172(A)(1).
[89] A.R.S. § 45-172(A)(2).
[90] A.R.S. § 45-172(A)(3).
[91] A.R.S. § 45-172(A)(4)-(6). For example, if an in-state surface water right is tied to lands within an irrigation district, the decision to transfer a water right must be approved by the irrigation district board. In some cases, irrigation districts have authority to veto any upstream transfer within the same watershed even if the water right is tied to lands outside of the district.
[92] A.R.S. § 45-172(A)(7); *ADWR v. McClennen*, No. CV-15-0223-SA, 2, 9, 11 (Nov. 12, 2015).
[93] *ADWR v. McClennen*, No. CV-15-0223-SA, 2 (Nov. 12, 2015).

amount historically consumed, i.e. diversion minus return flows.[94] This is because changing the location of the diversion in many cases will impact the amount of return flows going back to the river that downstream users rely upon.[95] As sever and transfers can impact downstream users, ADWR has shown hesitancy in granting applications when there are objections from right holders.[96]

Thus, although the framework exists for sever and transfers to occur, they can result in controversy that puts ADWR in politically challenging situations.[97] Sever and transfers are further complicated by the fact that the relative priority and extent of Arizona's in-state surface water rights are uncertain as a result of the General Stream Adjudication litigation.[98] These factors significantly increase the transaction costs of transferring surface water rights.

One recent example of a sever and transfer occurred in 2015. The process began in 2011 when Freeport-McMoRan bought land with water rights from the City of Scottsdale known as Planet Ranch near the Bill Williams River in western Arizona.[99] During the course of negotiations, Freeport applied to sever and transfer the water rights to a wellfield that would supply water to a copper mine.[100] For a variety of reasons, the Hualapai Tribe, Department of Interior, and Arizona Game and Fish objected to the transfer, leading to a series of negotiations that resulted in a series of 2013 settlement agreements.[101] Congress approved these settlement agreements as part of the Bill Williams River Water Rights Settlement Act of 2014.[102] One of the conditions that had to be met as part of the settlement was a final decision by ADWR to grant Freeport's sever and transfer application.[103]

ADWR published notice of the transfer, and Mohave County objected on the grounds that the transfer would affect the County's water supply and tax revenue.[104] The case made its way to the Arizona Supreme Court, which upheld ADWR's decision to approve the application. The court held that Mohave County could not object as an "interested person" as that term is used in the statute because the county did not have "an interest that is protected by [the relevant statute] that would be affected by the application for severance and transfer."[105]

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[94] Susanna Eden et al., *Agricultural Water to Municipal Use: The Legal and Institutional Context for Voluntary Transactions in Arizona* 10, The Water Report (Dec. 15, 2008).
[95] *Id.*
[96] *Id.* at 11; Mark A. McGinnis & R. Jeffrey Heilman, *Don't Be Left Out to Dry: Recognizing and Addressing Water Supply Issues in Arizona Real Estate Transactions*, 46 Ariz. St. L.J. 577, 594 (2014).
[97] M. Byron Lewis, Arizona State University Morrison Institute for Public Policy, *New Era of Arizona Water Challenges* 18 (May 2014).
[98] Rhett Larson & Kelly Kennedy, *Bankrupt Rivers*, 49 U.C. Davis L. Rev. 1335, 1367 (2016).
[99] Janet M. Howe, *Arizona Water Law: A Parched Public Interest*, 58 Ariz. L. Rev. 541, 546 (2016).
[100] *Id.* at 546-547.
[101] *Id.*
[102] *ADWR v. McClennen*, No. CV-15-0223-SA, 3 (Nov. 12, 2015).
[103] *Id.*
[104] *Id.*
[105] *Id.*

VII. What Water Transfers Could Mean for Arizona

ADWR has stated that over the next 20 to 100 years, Arizona may need to develop an additional 900,000 to 3.2 million acre-feet of water.[106] One of ADWR's priorities from its 2014 Strategic Vision to address the need for future supplies is evaluating the role of in-state water transfers. It reads:

> A source of significant controversy across the State, in-State water transfers have been the focus of much debate throughout Arizona's history. A comprehensive analysis of water transfers is needed in Arizona. Evaluation of long-term versus short-term transfers may actually provide insight into how water transfers can be developed to protect or even benefit local communities. Lessons from other western states that have adopted more market-based water right transfer models may be worthy of review as part of this analysis.[107]

As the state has noted, current laws do much to protect local interests and right holders.[108] Examples include strict application requirements, notice and public comment criteria, strict groundwater transportation limits, and authorities allowing irrigation districts to veto any upstream transfer within the same watershed.[109] However, many of these same protections act as barriers to transfers, including transfers that could address future water supply and demand gaps. Furthermore, transfers of in-state water supplies are significantly complicated by the lack of certainty regarding the extent and priorities of tens of thousands of surface water rights at issue in the Adjudication[110]

In addition to legal barriers, transfers can create controversy. Past discussions regarding transfers in Arizona have largely fallen along a "rural vs. urban" divide. Such divides are understandable because water supplies are a necessary ingredient to sustained economic activity, whether agricultural, industrial, service-economy or otherwise. Control of water thus represents a perceived form of local sovereignty, regardless of whether the actual transferred volumes are significant.[111] Parties to future water transfers may need to consider how the transaction will not only benefit the immediate parties to the deal, but also consider impacts to affected communities. In some cases, mitigation efforts may be a cost worth bearing in effectuating a transfer.[112]

There are many positive aspects to water transfers. For example, water transfers can in some cases provide a financial incentive for farmers to use water more efficiently.[113] In some cases, farmers could potentially lease or transfer conserved water while maintaining current agricultural

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[106] ADWR, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability* 51 (2014).
[107] *Id.* at 18.
[108] *Id.* at 57.
[109] A.R.S. § 45-172(A)(5); A.R.S. § 45-551 to -559; A.R.S. § 45-172(5), (7).
[110] M. Byron Lewis, Arizona State University Morrison Institute for Public Policy, *New Era of Arizona Water Challenges* 5 (May 2014).
[111] Paul Bergelin, *Moderating Power: Municipal Interbasin Groundwater Transfers in Arizona* 87, 103 Arizona State University Master's Thesis (Oct. 2013).
[112] Western Governors' Association, *Water Transfers in the West* 51, 63 (2012).
[113] *Id.* at xii.

operations.[114] This financial incentive can only exist if the farmer can be assured that he will not forfeit conserved water under forfeiture laws.[115] Unfortunately, this type of arrangement does not appear consistent with Arizona law, although a few states have implemented similar reforms.[116]

One option is to change Arizona law to facilitate transfers of conserved water through a type of "water right escrow." Under this approach, a water user such as a farmer could lease or transfer conserved water without fear of forfeiture under "use it or lose it" water laws.[117] Conserved water put in such a water rights escrow would undergo an expedited and simplified sever and transfer process.[118] This type of program could even set aside a percentage of the transferred water to go to in-stream flows to protect downstream users.[119] While such an approach is not without its challenges, particularly in light of the uncertain nature and extent of surface water rights subject to the Adjudication, it is a market-based concept that could encourage conservation. In the future, such an approach could also free up water supplies toward resolution of junior claims at issue in the Adjudication.[120]

In addition to incentivizing conservation, the expanded use of responsible water transfers would open up Arizona's water markets in ways that will facilitate flexible water management. Increased market-based efficiency in the use of water will ensure that water supplies are available for job-creating economic activities.[121] Such flexibility could facilitate now-unforeseen water arrangements that address projected supply and demand issues.

VIII. Conclusion

The purpose of this paper is to provide context about water transfers in Arizona. While transfers are possible under existing law, the state's current laws in many cases act as barriers to many water transfers. If appropriate reforms and practices are put in place that encourage water transfers while protecting existing right holders and rural communities, water transfers have the potential to incentivize conservation, facilitate flexible water arrangements, and aid the state in addressing future water demands.

The Arizona Department of Water Resources should consider leading a holistic review and discussion regarding current state laws and policies pertaining to water transfers and develop appropriate reforms and practices. Meaningful reform could maximize the benefits of water transfers and minimize their negative impacts. The discussion could also consider impacts of water transfers for communities from which water is transferred. Resolution to the issues that impede further use of water transfers as a management tool would ensure that Arizona's water policy continues to promote statewide economic prosperity and quality of life.

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[114] *See id.* at 38-39, 61-62.
[115] Rhett Larson & Brian Payne, Unclouding Arizona's Water Future, 49 Ariz. St. L.J. 465, 472 (2017).
[116] Western Governors' Association, *Water Transfers in the West* 38-39, 61 (2012).
[117] Rhett Larson & Brian Payne, Unclouding Arizona's Water Future, 49 Ariz. St. L.J. 465, 496-500 (2017).
[118] *Id.*
[119] Western Governors' Association, *Water Transfers in the West* 38-39 (2012).
[120] Rhett Larson & Brian Payne, Unclouding Arizona's Water Future, 49 Ariz. St. L.J. 465, 499 (2017).
[121] Western Governors' Association, *Water Transfers in the West* ix, 12-13 (2012).

AGENDA ITEM #5

MANAGEMENT BOARD

INFORMATION SUMMARY

February 14, 2018

Contract for Reprinting of Landscape Plants for the Arizona Desert Publication

STRATEGIC PLAN REFERENCE

Objectives – Advocate for Solutions; Prepare for Impacts of Drought & Shortage; Augment Supplies
Collaboration – Water Community; Business Community
Operational Principles – Facilitate our Strength in Numbers; Excel as an Expert and Resource

SUMMARY

AMWUA is in the process of updating and taking orders for the reprinting of our flagship publication, *Landscape Plants for the Arizona Desert*. Staff requested printing estimates based on the total preliminary orders received from members and partnering agencies. The job has been awarded to Courier Graphics. Courier met the specifications, offered the best price, and has established a track record of providing excellent products and service to AMWUA.

AMWUA's procurement policy requires the Board of Directors to approve the Executive Director's ability to enter into contracts greater than $30,000. With tax, the estimated purchase price for the preliminary quantity will be $31,521.96. The order quantity, and therefore the final cost, will increase some as final orders are placed by the end of February and as shipping is determined. AMWUA plans to print in March in order to have the publications delivered before waning supplies are emptied out by spring events.

The cost of the printing is recovered after AMWUA invoices the member conservation offices and other agencies and cities that place orders.

RECOMMENDATION

Staff requests that the AMWUA Management Board recommend that the AMWUA Board of Directors approve the Executive Director to enter into a contract based on the estimate provided for the printing of the *Landscape Plants for the Arizona Desert* publication.

AGENDA ITEM #6

MANAGEMENT BOARD

INFORMATION SUMMARY

February 14, 2018

AMWUA Quarterly Financial Statements – Second Quarter

STRATEGIC PLAN REFERENCE

Operational Principles – Manage an Efficient and Effective Association

SUMMARY

The AMWUA Statement of Revenues and Expenses for the period July 1, 2017 through December 31, 2017, and the Balance Sheet dated December 31, 2017 are presented for your information. The Statement of Revenues and Expenses show that AMWUA is operating very efficiently within the resources provided and is about $9,134 under budget through December 2017.

The majority of the budget line items are either at or below the approved budget for this fiscal year. Most of the differences are due to the timing of the expenses in relation to the year-to-date totals and should even out by fiscal year end.

The Balance Sheet shows that AMWUA is in a good cash position and reflects the Local Government Investment Pool (LGIP) Investment Account balance of approximately $811,507 that comprises the total of the Contingency and Reserve funds. The LGIP balance increases slightly from year to year from interest deposits.

RECOMMENDATION

Staff proposes that the Management Board recommend that the AMWUA Board of Directors accept the quarterly financial statements as presented.

ATTACHMENTS

- ***Attachment A –*** Statement of Revenues and Expenses
- ***Attachment B –*** Balance Sheet

ARIZONA MUNICIPAL WATER USERS ASSOCIATION

Statement of Revenues and Expenses
(Actual to Budget Comparison)
For Period July 1, 2017 through December 31, 2017

	Year-To-Date Actual	Year-To-Date Budget	Over(Under) Year-To-Date Variance	Approved Annual Budget
Funding Sources				
Assessment - Water	645,949.50	645,949.50	0.00	1,114,309.00
Assessment - Wastewater	76,656.00	76,656.00	0.00	222,088.00
2017 Carryover Applied to Reduce Member Assessments		0.00		13,871.00
Interest Revenues	4,601.08	0.00	4,601.08	0.00
Other Revenues	0.00	0.00	0.00	0.00
Net Revenues	**727,206.58**	**722,606.50**	**4,601.08**	**1,350,268.00**
Operating Expenses				
Payroll (Salaries)	304,844.41	300,071.50	4,772.91	600,143.00
Deferred Compensation (ASRS Payments)	35,312.79	35,952.50	(639.71)	71,905.00
Payroll Processing, Taxes and Insurance	26,849.23	28,000.00	(1,150.77)	56,000.00
Medical and Disability Insurance	32,212.20	34,500.00	(2,287.80)	69,000.00
Cell Phone Allowance	1,865.00	1,560.00	305.00	3,120.00
Temporary Services/Receptionist	710.50	0.00	710.50	0.00
Legal/Consulting Services (Ferris Contract)	30,000.00	30,000.00	0.00	60,000.00
Legislative Services (Aarons Company-Contract)	21,000.00	21,000.00	0.00	42,000.00
Audit - Water	8,450.00	8,450.00	0.00	8,450.00
Audit - Waste Water	13,170.00	13,170.00	0.00	21,950.00
Website Services	3,800.00	2,500.00	1,300.00	5,000.00
Communication Services (Kossan Contract)	19,999.98	19,999.98	0.00	40,000.00
Consultant-Finance/Accounting	13,999.98	13,999.98	0.00	28,000.00
Audio/Visual Development	300.00	1,250.00	(950.00)	2,500.00
IT Services	2,400.00	2,500.00	(100.00)	5,000.00
Office Space - Lease	86,036.88	87,100.00	(1,063.12)	174,200.00
Common Area Maintenance	2,716.81	1,750.00	966.81	3,500.00
Telephone	3,512.88	4,500.00	(987.12)	9,000.00
E-Mail/Webpage/Internet	1,913.38	2,100.00	(186.62)	4,200.00
Travel/Conferences	4,450.96	4,450.96	0.00	9,000.00
Milage Reimbursement	1,154.23	1,500.00	(345.77)	3,000.00
Continuing Professional Ed	895.00	895.00	0.00	1,000.00
Staff Development	0.00	750.00	(750.00)	1,500.00
Copy Machine - Lease	2,476.88	2,600.00	(123.12)	5,200.00
Computer Hardware/Software	3,742.40	3,742.40	0.00	6,000.00
Office Supplies	1,171.04	3,500.00	(2,328.96)	7,000.00
Meetings	2,988.51	2,500.00	488.51	5,000.00
Outreach Efforts	0.00	2,500.00	(2,500.00)	5,000.00
Printing	143.35	1,150.00	(1,006.65)	2,300.00
Postage & Deliveries	659.08	1,000.00	(340.92)	2,000.00
Subscription & Reference	445.70	650.00	(204.30)	1,300.00
Dues & Memberships	1,261.16	1,000.00	261.16	2,000.00
Insurance	26.00	2,000.00	(1,974.00)	4,000.00
Equipment Maintenance	0.00	1,000.00	(1,000.00)	2,000.00
Water Conservation	53,056.52	53,056.52	0.00	90,000.00
Total Operating Expenses	**681,564.87**	**690,698.84**	**(9,133.97)**	**1,350,268.00**

Reserve and Contingency Funds Summary:

Contingency Fund Balance on 12/31/17	$600,000
Reserve Fund Balance on 12/31/17	202,000
Total Contingency and Reserve Funds	$802,000

ARIZONA MUNICIPAL WATER USERS ASSOCIATION

Balance Sheet

As of 12/31/2017

Assets

Current Assets		
Petty Cash	$500.00	
Compass Checking	40,044.79	
Compass Money Market	156,485.56	
Investment Account (LGIP)	811,507.27	
Accounts Receivable	600.00	
Prepaid Expenses	16,448.53	
Total Current Assets		$1,025,586.15
Property, Plant & Equipment		
Furniture & Equipment	$173,124.62	
Leasehold Improvements	52,665.08	
Accum Depreciation Furniture	(164,559.11)	
Accum Depreciation Leasehold	(49,996.54)	
Total Property, Plant & Equipment		11,234.05
Other Assets		
Deferred Outflow-Pension Resources		$164,449.72
Total Assets		$1,201,269.92

Liabilities and Equity

Current Liabilities		
Retirees Excess Benefit Clearance	3,246.35	
Accrued Expenses	141,771.68	
Total Current Liabilities		$145,018.03
Long Term Liabilities		
Net Pension Liability	$873,228.00	
Deferred Inflow-Pension Resources	300,874.00	
Deferred Revenues	76,301.12	
Total Long Term Liabilities		1,250,403.12
Total Liabilities		$1,395,421.15
Equity		
Fund Balance		(194,151.23)
Total Liabilities and Equity		$1,201,269.92