

New Flexibility on the Central Arizona Project Canal: The Tucson/Phoenix Exchange and the System Use Agreement

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I. INTRODUCTION

A Colorado River shortage is coming.¹ The exchange program between Phoenix and Tucson-area subcontractors is an elegantly simple solution to protect against a municipal shortage because it takes advantage of preexisting legal frameworks and fills capacity in already-built infrastructure. Surface-water dependent Phoenix delivers Central Arizona Project (CAP) water it cannot presently use to recharge facilities that the groundwater-based Tucson area does not presently need to fill. As noted below, the current Tucson/Phoenix exchange is both an intergovernmental agreement (IGA) between Tucson and Phoenix, and a pilot project between Tucson, Phoenix, and the Metropolitan Domestic Water Improvement District (Metro). It could readily morph into a series of exchange agreements between additional Tucson area parties and Metro-Phoenix area parties, as well. At the largest scale, the “Tucson/Phoenix exchange” means using Southern Arizona’s productive, and clean aquifers—and more precisely, the large amount of clean storage space in the vadose zone above those aquifers—to store water for the Phoenix area. During an “exchange,” the Tucson area would pump stored water and place an order to have Tucson-area CAP water directly delivered to Valley-area water treatment plants.

But even this simple solution has taken at least 5 years to implement; and due to a variety of administrative challenges, Tucson has yet to deliver water to Phoenix, even on a “pilot scale.” Flexibility, collaboration, innovation, and creativity will become increasingly necessary to meet Arizona’s water needs; the Tucson/Phoenix exchange shows a pathway that—now that it has been almost completely invented, revised, collaborated, dissected, permitted, and approved—is ready to be a substantial component of Arizona’s shortage implementation strategy.

II. EARLY PHASE INTER-AMA FIRING

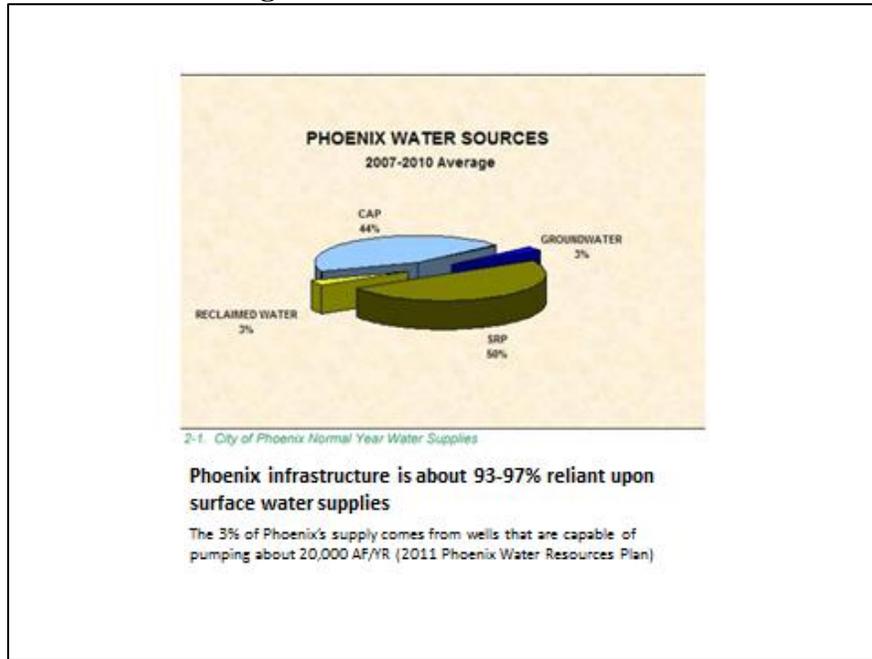
In the summer of 2013, staff from Tucson Water, the Metro, Phoenix, and Arizona Municipal Water Users Association (AMWUA), met in Casa Grande to discuss an idea that seemed improbable, but could solve issues that faced their respective Active Management Areas. Tucson and Metro both owned recharge projects that were designed to store more water than their customers were using—or were forecasted to use during

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¹ Central Arizona Project, *Colorado River Shortage Impacts on Arizona* (Apr. 2015), <http://www.cap-az.com/documents/shortage/Shortage-Fact-Sheet.pdf>.

the next 20 years. In Phoenix, there was a critical shortage of available recovery facilities if there were to be a shortage on the CAP canal.²

Figure 1. Phoenix Water Sources



Tucson and Metro proposed that AMWUA cities, the Arizona Water Banking Authority (herein, the Water Bank), or some form of partnership between the AMWUA cities and the Water Bank could store water in the Tucson-area facilities and accrue long-term storage credits during the next few decades of available storage beginning in 2014, during a shortage, Tucson and Metro could deliver their respective CAP allocations directly to Salt River Valley water treatment plants and pump the stored credits into their distribution systems. This initial proposal was based on a Water Bank model where credits would be pre-accrued and then transferred at the time of a shortage. It was also proposed that the Valley could construct new storage facilities in the Tucson area for a fraction of the cost of building new local storage and recovery facilities; primarily because Tucson had already constructed recovery well fields and transmission pipelines and Metro was in the process of designing its own recovery facilities. After a variety of discussions in 2013 and early 2014, the City of Phoenix, Metro, and Tucson—as part of wider discussions between AMWUA and the Southern Arizona Water Users Association (SAWUA)—agreed to conduct an initial “pilot” phase to test the administrative and legal feasibility of a larger-scale and longer-term program, which was called, “Inter-AMA Firming.” The Phase 1 pilot program was proposed for calendar years 2015 and 2016 and involved storage and recovery of up to 1,000 acre-feet of City of Phoenix water (850 in Tucson facilities and 150 in Metro’s facilities). Even though the program would not require expansion of recharge facilities, it needed CAP’s permission to deliver City of

² See Figure 1; Phoenix has existing well capacity to deliver only 3% of its current water demand.

Phoenix water “up-canal” to Tucson-area storage facilities and permits from the Arizona Department of Water Resources (ADWR). The “Pilot Parties” met with CAP and ADWR to discuss the project in May 2014.

In response to concerns from CAP that the proposal could set a precedent that might, (1) undermine “subleasing” restrictions under CAP long-term subcontracts; (2) result in an illegal exchange of credits for CAP water; and, (3) lead to “virtual wheeling” of CAP water, the Pilot Parties revised the initial proposal so that instead a “firming/credit” component like a typical Arizona Water Bank project, the pilot project would operate as an exchange under A.R.S. § 45-1001, et seq.³ Under this revised proposal, Phoenix would obtain a storage permit for the Tucson-area facilities and would also permit Tucson and Metro’s recovery wells as City of Phoenix recovery wells, thus essentially moving the “exchange” to the “pump bowl.” The exchanged water would thereby be City of Phoenix Central Arizona Project subcontract water until it was actually stored, and the accrued credits would remain in City of Phoenix accounts until a Notice of Exchange were filed with ADWR. In response, CAP expressed concerns under the “giver rule,”⁴ but ADWR approved the exchange because the City of Phoenix would be “giving” recovered long-term storage credits, not the long-term storage credits themselves, and thus the exchange would be a “wet-water” for “wet-water” exchange.

During the summer of 2014, the Pilot Parties prepared the IGAs, which were approved by the fall of 2014, in time for Phoenix to place an order to deliver its CAP water to the Tucson-area recharge facilities in 2015. That Halloween, ADWR approved all of the necessary storage permits.⁵ But CAP was not pleased, and sent a letter to the Pilot Parties in December 2014, pointing to a variety of unsettled operational and legal issues.⁶ CAP begrudgingly approved the exchange order for 2015, but withheld any consent for future direct deliveries of Tucson-area water to Phoenix or any consent for

³ Under the first-generation proposal, which was intentionally vague, long term storage credits could have been accrued under Tucson or Metro accounts at the time the water was delivered, and thus Tucson or Metro would have pumped their own credits during a firming year. As noted below, this did pose a variety of legal issues that would subsequently be resolved by the “exchange” model.

⁴ See, e.g., Summary of the 1992 Water Exchange Act at pp. 9-11, at <https://new.azwater.gov/sites/default/files/WaterExchange-WX1.pdf>.

⁵ Phoenix was granted Water Storage Permit No. 73-211276.0700 for Tucson’s SAVSARP facility. ADWR issued Tucson and Phoenix an Exchange Permit for 791 acre-feet of water (850 acre-feet minus a 5% “cut to the aquifer” and 2% evapotranspiration loss), pursuant to A.R.S. § 45-1051. See Notice of Water Exchange No. 69-224167.0000.

⁶ In my opinion, the legal and operational issues that presented Water Bank (e.g. firming) were, in fact, simpler than those inherent in Water Bank and CAP firming and wheeling concepts that had been in place since the inception of the Water Bank’s interstate and intrastate firming programs in 1996, but which had never been tested. This simplicity was due to the fact that all in the Tucson-area/Phoenix exchange, all water delivered in the CAP canal would have been subcontract water ordered under a long-term subcontract. Section 4.3(e) of the standard CAP subcontract expressly allows “exchanges of Project Water within the State of Arizona covered by separate agreements.” The sole complication—that Phoenix water delivered south to the Tucson area would have been delivered to a place much further “up” the canal than usual for the CAP system—was not an issue because the Pilot Parties had always proposed to defer to canal capacity needed to deliver to subcontractors south of the Salt River. Even so, the Tucson-area/Phoenix exchange brought those issues into direct focus, even under the second-phase or “exchange” model.

any future water orders. CAP also announced that it would be developing a “Supplement Firming” policy in 2015.

After an ongoing series of exchanges, meetings, letters, and discussions throughout 2015, CAP announced that it would be developing a “System Use Agreement” to address a comprehensive framework to address firming and wheeling issues. After all, if a “pilot” exchange of 1,000 acre-feet of CAP water between three parties with long-term subcontracts was illegal and operationally infeasible on the CAP canal, and could not be approved for a period longer than one year, it would be impossible to make any long-term arrangement to firm or wheel any interstate or intrastate water credits stored by the Water Bank—some 550,000 acre-feet of interstate water and 3.4 million acre-feet of intrastate water—⁷ and use the CAP canal to do it. The process of developing the System Use Agreement would take another year to complete, with a final version approved in February 2017.⁸

III. CURRENT PHOENIX/TUCSON EXCHANGE

In the meantime, the Pilot Parties continued to work on large scale delivery of 4,000 acre-feet to Tucson and 1,500 acre-feet to Metro in 2016. Placement of this water order with CAP was met with a “we can do this one time and are not setting a precedent” response. Once the System Use Agreement was adopted in 2017, Phoenix and Tucson moved forward to complete the final phase of the transaction, even though orders of Tucson’s water to Phoenix were unable to be completed. Tucson adopted the current 10-year agreement to deliver up to 37,000 acre-feet annually, on November 8, 2017.⁹

A. Storage

Phoenix’s CAP allocation will be ordered and delivered to the City of Phoenix’s storage permit at Tucson’s Southern Avra Valley Storage and Recovery Project (“SAVSARP”) for a storage fee based on Tucson’s Water Bank Storage Rate; which was \$17.59 per acre-foot in 2017 and will gradually rise to \$23.66 per acre-foot by 2027 (Operations, Maintenance, and Repair or OM&R), plus a Capital Cost of \$50.00 per acre-

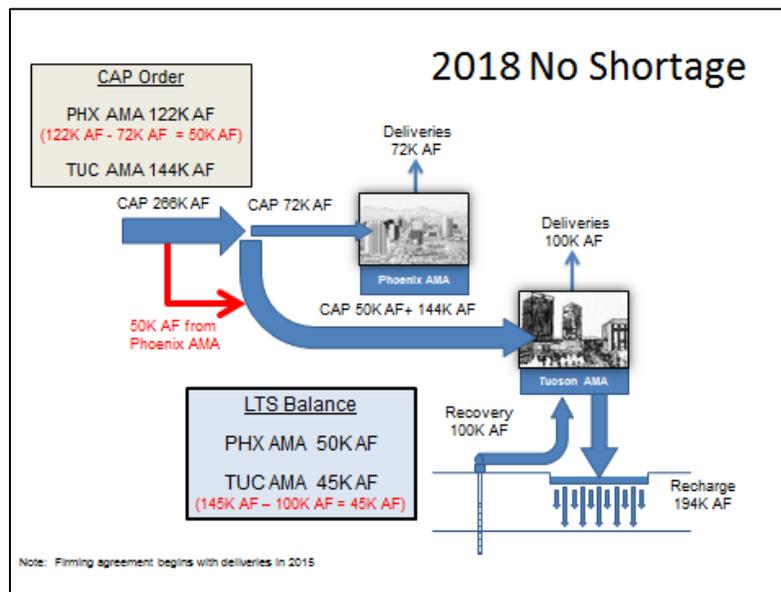
⁷ Arizona Water Banking Authority, Online Ledger; Interstate, <http://www.azwaterbank.gov/Ledger/defaultInterstate.aspx>; *Id.* at AWBA Intrastate Report - Statewide Deliveries & Long Term Storage Credit, http://www.azwaterbank.gov/Ledger/Report_1.aspx (last visited May 3, 2018).

⁸ See Central Arizona Project System Use Agreement between the United States and the Central Arizona Water Conservation District, <https://www.cap-az.com/documents/departments/planning/service-area-planning/CAP-SYSTEM-USE-AGREEMENT-2-1-2017.pdf> (last visited May 3, 2018).

⁹ Intergovernmental Agreement between City of Phoenix, Arizona, and City of Tucson, Arizona for Storage, Recovery, and Exchange of Central Arizona Project Water (“Tucson/Phoenix Exchange IGA”), §§ 2, 3, (Nov. 8, 2017), https://www.tucsonaz.gov/sirepub/mtgviewer.aspx?meetid=1725&doctype=AGENDA&__ncforminfo=KGHKBa14S1bvPX9jVWyF3L4vgMdVA4axsvH4KmQrVvjMY8kwrn_9_yV0D32AJTg-IFXwik7LsR1rRsRzEUqoy-hF54jphb33igk5uxcvXIA=.

foot for all years of the agreement.¹⁰ Tucson and Phoenix agree to coordinate regarding scheduling, permitting, and ordering water to be delivered by the exchange.¹¹ Thus, after each storage year, Phoenix will have an amount of water credited to its long-term storage SAVSARP account roughly equal to its deliveries to SAVSARP subtracted by a 7% debit for “cut to the aquifer” and evapotranspiration losses.¹² The basics of a first-stage Tucson/Phoenix exchange are summarized in the following graphic:

Figure 2. 2018 No Shortage



B. Exchange

Once Phoenix has stored its water in its SAVSARP account, it may exchange it with Tucson by providing notice of its intention to enter into an exchange by September 1st of each year.¹³ Phoenix must also apply to the ADWR for recovery well permits under A.R.S. § 45-834.01 to allow approved Tucson Water wells to be used to recover Phoenix’s stored water.¹⁴ Once the permits for the exchange and the recovery wells have been obtained, Tucson will deliver a portion of its CAP subcontract entitlement to Phoenix water treatment plants (Points of Delivery).¹⁵ Phoenix will recover its long-term storage credits through its permitted recovery wells in Tucson, and Tucson will operate

¹⁰ Tucson/Phoenix Exchange at § 4.3 & Exhibit E, Schedule of Water Storage Fees.

¹¹ *Id.*, at § 4.

¹² *Id.* at §§ 1.7, 1.11, 4.4, 5.7.

¹³ *Id.* at § 4.5.

¹⁴ *Id.* at §§ 4.6, 5.3.

¹⁵ *Id.* at §§ 5.3, 5.4, Exhibits A, B, C.

and maintain the recovery wells at its expense.¹⁶ The basics of the second-stage of Tucson/Phoenix exchange is summarized in the following graphic:

Although Phoenix's annual storage entitlement is 37,000 acre-feet annually, its ability to recover storage credits and exchange them for Tucson's CAP entitlement is capped by the amount of Tucson's entitlement (currently 144,191 acre-feet annually). In a shortage year, the cap is set at either Tucson's expected shortage water demand or Tucson's expected water deliveries for the year, both of which would dwarf the storage availability of 37,000 acre-feet.¹⁷

C. Other Provisions

The Tucson/Phoenix Exchange IGA contains a variety of provisions designed to ensure that the parties supply each other with information, cooperate on permitting issues, and set schedules for water storage orders, exchanges, and permits. There are also some standard legal provisions designed to ensure that parties meet their obligations, and a provision that if any exchange is thwarted by third-party issues (e.g. CAP scheduling, ADWR permitting), Phoenix may sell its stranded long-term storage credits.¹⁸

IV. THE SYSTEM USE AGREEMENT

Between 2014 and 2016, Phoenix ordered water for delivery to Tucson despite CAP protests that each order was a one-time transaction and that any long-term deliveries could only be accomplished through CAP's development of a "Supplemental Firming" program. After the usual variety of twists and turns, CAP announced a draft System Use Agreement in January 2016 that was approved in substantially similar form in February 2017.¹⁹ The parties to any Tucson/Phoenix arrangement always understood that Phoenix deliveries to Tucson-area recharge facilities must not jeopardize "standard" deliveries of Pinal AMA and Tucson AMA subcontracts. Moving Phoenix area water into CAP canal segments that had been envisioned for use by Phoenix-area subcontractors must take a lower priority. The Pilot Parties had always expected that this priority could be established by an agreement with CAP, subject to CAP's operational and capacity constraints on the canal. The System Use Agreement does all of this, and more.

The System Use Agreement is a comprehensive agreement between CAP and the United States that could solve this issue not only for the Tucson/Phoenix Exchange, but for a much broader array of "non-standard"²⁰ uses of the CAP canal. One standard feature

¹⁶ *Id.* at § 5.5.

¹⁷ *Id.* at §§ 4.5, 5.2.

¹⁸ *Id.* at § 6.

¹⁹ See generally Central Arizona Project, *CAP System Use Agreement*, <https://www.cap-az.com/departments/planning/service-area-planning/cap-system-use-agreement> (last visited May 3, 2018).

²⁰ "Standard uses" being the regular delivery of CAP subcontract entitlements or excess water to usual and expected points of delivery.

of the Tucson/Phoenix exchange is that all of the water—whether Phoenix water delivered to Tucson, or Tucson water delivered to Phoenix, is water delivered pursuant to CAP subcontract, or “Project Water.” The System Use Agreement, however, establishes a grand framework for delivery of a Project Water, and also authorizes CAWCD to deliver Recovery Exchange Water, Replenishment Exchange Water, and non-project water for Firming, On-River Firming, and to meet obligations of interstate agreements.²¹ It therefore resolves almost all of the operational, financial, legal, and issues related to using the CAP system to move not only Project Water but also to “wheel” additional or supplemental water supplies through the CAP canal.

A. Wheeling Agreements and Scheduling

Non-project water deliveries require a Reclamation or CAWCD wheeling agreement, which are standard-form agreements; the CAWCD wheeling contract is attached as Exhibit B to the System Use Agreement.²² The standard form wheeling contract establishes a contractual framework for any future wheeling deliveries, including the rate components, scheduling priorities, water quality standards, and canal connections that may be required. Wheeling contractors will pay CAP usual OM&R charges, plus a Capitol Equivalency Charge, plus a Pumping Energy Charge (no “postage stamp” rates).²³ CAP will also perform wheeling for the United States’ obligations pursuant to transport Non-project water under Bureau of Reclamation wheeling contracts and other federal wheeling arrangements.²⁴

B. Firming Water

The System Use Agreement also authorizes a wide variety of non-project and exchange water to be made available as sources of firming²⁵ water. By extension, the agreement also authorizes a wide variety of methods of recovery. Recipients may be required to enter into a Firming Agreement. The terms of the Firming Agreement are not established in the System Use Agreement but appear likely to resemble a standard-form wheeling contract with some exceptions, mostly because firming water would be delivered when there is available “space” on the canal due to a shortage and because it assumes the scheduling priority of water it is intended to firm.²⁶

C. Exchanges

Exchanges were already allowed under Section 4.3 of the standard long-term CAP subcontract (if not fully implemented), but the System Use Agreement expressly

²¹ Central Arizona Project System Use Agreement between the United States and the Central Arizona Water Conservation District, *supra* note 8.

²² System Use Agreement §§ 5, 6, 7 and Exhibit B. The standard form “Reclamation Wheeling Contract” is attached as Exhibit C; *See also Id.* at § 7.2.

²³ *Id.* at Exhibit B, CAWCD Wheeling Contract § 14; Exhibit C, Reclamation Wheeling Contract at § 10.

²⁴ *Id.* at § 7

²⁵ “Firming” is defined as “satisfying all or a portion of a [CAP subcontract] entitlement that has been reduced due to a Water Shortage.” *Id.* at § 3.24.

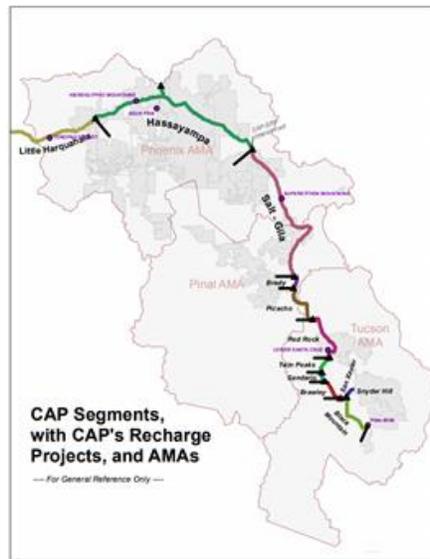
²⁶ *Id.* at §§ 8, 11.2.

authorizes Project Water exchanges between long-term subcontractors and CAP as well as long-term subcontractors and parties holding non-project water.²⁷ Thus, the System Use Agreement envisages a variety of novel exchanges, including M&I subcontractors exchanging with a third party, for firming and non-firming purposes, and between CAP itself and long-term contractors. Section 3.17 of the System Use Agreement contemplates the development of an “Exchange Implementation Agreement” between CAWCD and the parties to an exchange agreement, that will establish the “terms and conditions” for CAWCD deliveries.²⁸ The System Use Agreement also requires CAP and Bureau of Reclamation approval of the underlying exchange agreement (in this case, the Tucson/Phoenix Exchange IGA), but it seems likely that the Exchange Implementation Agreement could be used for this purpose, as well.²⁹

D. System Use Scheduling Priorities

For purposes of implementing the Tucson-area and Phoenix exchanges, the scheduling priorities for use of specific CAP canal segments and categories of water is the key factor in the System Use Agreement, and the scheduling priorities are interlinked to the segments of the CAP canal, so that moving subcontract water into down-canal or uphill segments has a generally lower priority than deliveries to up-canal or downhill segments, see Figure 3, below:

Figure 3. CAP Segments



²⁷ *Id.* at §§ 9, 9.1 (long-term subcontractors), 9.2 (long-term subcontractors and third parties).

²⁸ *Id.* at §§ 9.2, 3.17.

²⁹ *Id.* at §§ 9.2.1.2, 9.2.1.3.

Scheduling is established in Section 10, and is folded into the preexisting CAP subcontract ordering procedures. The most important provision is the establishment of a uniform 5% reduction to the volume of non-project water introduced into the canal, except when used for firming.³⁰ Section 11 establishes the priorities when schedule development reveals that there are too many proposed uses for particular portions of the canal.³¹ Priorities are sorted by canal segments³² and by the character of the water to be delivered (firming water carries the priority of the water it replaces).³³

For the Phoenix/Tucson-area exchanges, water delivered by Tucson area, parties to Phoenix to complete an exchange would be first priority water. First priority water is defined as water delivered under long-term subcontracts directly or by exchange for use within the contractor's service area or reservation, or for leases, exchanges, and underground storage delivered within the same segment as the contractor's service area or reservation, or an upstream segment.³⁴ Thus, water delivered by Tucson to Phoenix would be delivered upstream from approximately canal mile 300 (Tucson's usual deliveries) to mile 120 (the Hassayampa segment).³⁵

The remaining priorities include: second, through 2030, the Agricultural Settlement Pool;³⁶ third, CAWCD wheeling contracts (8.18) after project completion & verification³⁷ (thus, a party with non-project water (wheeling contracts are only available for non-project water) could improve to third priority by paying for improvements to canal capacity.);³⁸ fourth, Long-Term Contracts delivered for leases, exchanges and underground storage in downstream segments³⁹ (Under the Tucson/Phoenix exchanges, water delivered to the Tucson area by Valley subcontractors would therefore be fourth priority, unless the subcontractor were to obtain third-priority by participating in canal capacity improvements);⁴⁰ fifth, excess water;⁴¹ sixth and seventh, federal wheeling for

³⁰ *Id.* at § 10, the 5% loss factor is established in § 10.2.2.

³¹ *Id.* at § 11.1.

³² Segments are portions of the CAP canal between pumping plants, mapped on Exhibit A to the System Use Agreement. For example, most deliveries to Phoenix would take place on the Hassayampa Segment. *Id.* at Exhibit A.

³³ *Id.* at § 11.2.

³⁴ *Id.* at § 11.1.1; Exhibit A.

³⁵ *Id.* at Exhibit A.

³⁶ *Id.* at § 11.1.2.

³⁷ *Id.* at § 11.1.3; § 13 allows for increases in CAP Canal Capacity to be scheduled, reviewed, and approved by CAWCD and the Bureau, to be included as "Verified Additional Operational Capability." *Id.* at §§ 3.51, 13.

³⁸ A long-term subcontractor (who may not need a CAWCD Wheeling Contract) should be able to purchase Verified Additional Operational Capacity by participating in necessary system improvements. Participating in such improvements is not expressly considered under the terms of the System Use Agreement, as wheeling contracts are limited to non-project water, but would be permissible if the long-term subcontractor were to contract with a wheeling party or a consortium of wheeling parties and subcontractors to make canal improvements. Construction of canal improvements would not get a long-term subcontractor to first priority, however. *Id.* at § 11.1.1.

³⁹ *Id.* at § 11.1.4.

⁴⁰ *See supra* note 36.

⁴¹ *Id.* at § 11.1.5.

Indian and federal agency purposes,⁴² or for other purposes;⁴³ and, eighth, CAWCD wheeling contracts for non-project water for “projected” additional capacity pending system improvement project completion.⁴⁴

In general, the scheduling priorities under the System Use Agreement are an equitable way to resolve issues that may arise with additional agreements to operate the canal in unusual ways. Section 11 establishes that once Phoenix has been able to schedule fourth priority water deliveries to Tucson recharge facilities, the subsequent exchanged water to be delivered by Tucson to Phoenix will be first priority water, not subject to any ordinary or predictable constraints.

E. Rates and Revenues

Non-project water delivered under the System Use Agreement will be subject to the usual OM&R rates for Project Water, in addition to a pumping energy charge, and a “Capital Equivalency Charge.” The rates and changes will then be deposited into the Lower Colorado River Basin Development Fund.⁴⁵ Project Water exchanged for non-project water will be charged the usual rates.⁴⁶

F. Water Quality

Currently, the most controversial and time-consuming piece of the System Use Agreement has involved Section 12, which provides that “Reclamation and [CAP] shall establish uniform water quality standards for any non-project water introduced into the CAP system.”⁴⁷ This has proven to be a problematic issue for Tucson-area subcontractors, because Article 8.15 of the Master Repayment Contract (the terms of which are also duplicated in individual long term subcontracts) requires CAP to operate and maintain its system “in such manner as is practicable to maintain the quality of Project Water made available through such facilities at the *highest level reasonably attainable*” as determined by Reclamation or CAWCD.⁴⁸ Reclamation must also consider the impact that wheeling non-project water will have on the quality of Project Water when approving a CAWCD wheeling contract.

⁴² *Id.* at § 11.1.6.

⁴³ *Id.* at § 11.1.7. Such wheeling is commonly called “8.17 Water” after Sections 8.17 and 8.18 of the Master Repayment Contract between CAWCD and the United States, entered into as the Contract Between the United States and the Central Arizona Water Conservation District for Delivery of Water and Repayment of Costs of the Central Arizona Project, Contract No. 14-06-W-245, Amendment No. 1, (Dec. 1, 1988). Sections 8.17 and 8.18 support the “full use” of the CAP canal. *See, e.g., Id.* at Explanatory Recitals 2.21-2.23 and § 3.31.

⁴⁴ *Id.* at § 11.1.8.

⁴⁵ *Id.* at § 14.

⁴⁶ *Id.* at § 14.1.

⁴⁷ *Id.* at § 12.1

⁴⁸ Central Arizona Project, Arizona Water Settlement Agreement at Art. 4.11 (on file with Central Arizona Project) (emphasis added).

After the System Use Agreement was approved, CAP convened a Water Quality Standards Task Force to consider appropriate standards for non-project water introduced into the canal.⁴⁹ Tucson-area parties have consistently advocated for water quality standards that resemble background CAP monitoring for a variety of constituents. Tucson area parties have also advocated to have the burden of meeting these standards on the party introducing water into the canal, instead of using the canal to dilute otherwise unacceptable or marginal water supplies.⁵⁰ This position has broad legal support under the Master Repayment Contract, Section 12.2 of the System Use Agreement and Section 10 of the Standard Form of CAP wheeling contract, because the party introducing non-project Water into the CAP system is responsible for compliance with the water quality standards. Tucson’s position is that CAP and the Bureau of Reclamation have a quasi-fiduciary duty to maintain water quality at “the highest level reasonably attainable.”⁵¹ Tucson would consider a permitting system and promulgation of water quality standards that apply to any non-project discharges into the canal and protect Project Water to be “reasonably attainable.” Some Phoenix area parties have advocated for an allowance to allow small quantities of water that exceed CAP background standards to be wheeled.⁵² On May 24, 2017, CAP staff was preparing a white paper addressing water quality-related legal issues related to wheeling non-project water.⁵³ As of February 8, 2018, there was an impasse between Tucson-area stakeholders and Valley-area stakeholders over how “not to exceed” standards for non-project water introduced to the canal.⁵⁴ It may be some time before CAP and Bureau of Reclamation are able to resolve the issues posed by three one-sentence subsections of the System Use Agreement.⁵⁵

IV. WHAT’S NEXT

With the approval of the full-scale Tucson/Phoenix Exchange IGA, and System Use Agreement, the actual Tucson/Phoenix exchange and the model for additional exchanges seems close to finality. Some issues prevent Tucson or Metro from placing a pilot exchange order to complete a single phase of the transaction. In the roll-out of the System Use Agreement, CAP has yet to promulgate a final Exchange Implementation

⁴⁹ Central Arizona Project, *Water Quality Standards Task Force*, <https://www.cap-az.com/board/committees/water-quality-standards-task-force> (last visited May 3, 2018).

⁵⁰ Sandy Elder, *CAP – Water Quality Standard Task Force* (June 6, 2017), <https://www.cap-az.com/documents/meetings/2017-06-06/1635-2j.%20CAP%20%E2%80%93%20Water%20Quality%20Standard%20Task%20Force.pdf>

⁵¹ System Use Agreement § 12 and Exhibit B at § 10.

⁵² See, e.g., Scottsdale Water, *Harquahala Valley Groundwater Wheeling* (June 6, 2017), <http://www.cap-az.com/documents/meetings/2017-06-06/1635-2d.%20June%202017%20CAP%20WQ%20Task%20Force%20Meeting%20HVID.pdf>.

⁵³ Central Arizona Project, *Water Quality Requirements under CAP System Use Agreement*, <https://www.cap-az.com/documents/meetings/2017-05-24/1634-2.%20SUA%20and%20Related.pdf> (last visited May 3, 2018).

⁵⁴ Central Arizona Project, *Update on Process and Activities*, at 6, <https://www.cap-az.com/documents/meetings/2018-02-08/1681-2-Update-on-Process-and-Activities.pdf>.

⁵⁵ *Id.* at 2, 5; System Use Agreement at § 12.

Agreement as contemplated by Section 3.17. Even if development of a standard-form Exchange Implementation Agreements that covers all manner of possible exchanges and uses all manner of waters entering and exiting the CAP canal is stalled over the development of water quality standards for non-project water, there is no reason why quality concerns should delay Exchange Implementation Agreements where no water is introduced into the canal, such as the Tucson and Metro exchanges with Phoenix.

It will be a much more difficult and a longer-term task for CAP and the Bureau to develop appropriate water quality standards for non-project water, and then the real fight begins—deciding whether to increase canal capacity.⁵⁶ But there is hope for new and creative solutions to these issues. On January 23, 2018, the Tucson City Council approved an agreement with CAP to exchange a portion of Tucson’s CAP allocation for long-term credits stored by the Water Bank to allow CAP to meet its obligation to deliver interstate water to Nevada. The agreement incorporates many of the same concepts that seemed so contentious just four years ago, and was also approved by CAP on March 1, 2018.⁵⁷

⁵⁶ Instead of two- or three-party contracts that need only CAP and Reclamation approval like a CAP exchange, a canal capacity decision promises to involve virtually all CAP stakeholders, many of them making aggressively long term predictions about future needs, for inchoate water supplies that reside throughout the State of Arizona and perhaps in other states and Mexico.

⁵⁷ City of Tucson, City Council Meeting Minutes, https://www.tucsonaz.gov/sirepub/mtgviewer.aspx?meetid=1757&doctype=AGENDA&__ncforminfo=cAg5Ze1PzDk8rRA_4eREPHdugIw8BWYRVRIMWRWZzCGqg3lGvQGs8r-a4S6j-6ta10ObQ4rTiKiNUHstfOk13yS0YAxN1lYUrcEfmS_69Sg=. <http://www.cap-az.com/documents/meetings/2018-03-01/1683--Agenda-Final-Linked2-Board-Meeting-030118.pdf> (last visited May 3, 2018).